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**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Application of PACIFIC GAS AND ELECTRIC  
COMPANY, a California corporation, for a Permit  
to Construct the Fulton-Fitch Mountain  
Reconductoring Project

(U 39 E)

A.15-12-005  
(Filed December 3, 2015)

**PACIFIC GAS AND ELECTRIC COMPANY'S  
PETITION FOR MODIFICATION OF DECISION 17-12-012**

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Dated: June 29, 2018

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**I. INTRODUCTION**

In accordance with Rules 16.4 of the California Public Utilities Commission's ("CPUC's" or "Commission's") Rules of Practice and Procedure, Pacific Gas and Electric Company ("PG&E") hereby submits this Petition for Modification of Decision 17-12-012, issued December 18, 2017, to modify the construction plans for the southern 1.4-mile segment of the approved project.

PG&E does not contest approval of the permit to construct for this project or any finding of fact or conclusion of law. Rather, PG&E seeks permission to replace poles on an additional 1.4 miles of the project alignment to ensure the safety of the line, and to make other related adjustments in the construction plan. The proposed revisions to Decision 17-12-012 and the approved Mitigation, Monitoring and Reporting Program are set out in Attachment A.

**II. PROCEDURAL HISTORY**

On December 14, 2017, the Commission approved Decision 17-12-012, which granted PG&E's request for a permit to construct ("PTC") the Fulton-Fitch Mountain Reconductoring Project ("Project"). The PTC approved PG&E's plan to reinforce the electric transmission system in central Sonoma County by replacing conductors on a 9.9-mile-long section of the Fulton-Hopland 60 kV Power Line ("Fulton-Hopland 60 kV line") between Fulton Substation and Fitch Mountain Substation, replacing poles along 8 miles of the Fulton-Hopland line, and replacing conductor on 1.4 miles of the Geysers #12 Fulton 230 kV Transmission Line ("Geysers #12 230 kV line"). The proposed project would be located primarily in unincorporated Sonoma

County and a small portion of the Town of Windsor, between Larkfield-Wikiup and the Russian River.

An Application for Rehearing filed by PG&E on January 17, 2018, to remove dictum about pole wind loading, was granted on April 27, 2018.

### **III. LEGAL STANDARD**

Rule 16.4(b) of the Commission's Rules of Practice and Procedure provides:

A petition for modification of a Commission decision must concisely state the justification for the requested relief and must propose specific wording to carry out all requested modifications to the decision. Any factual allegations must be supported with specific citations to the record in the proceeding or to matters that may be officially noticed. Allegations of new or changed facts must be supported by an appropriate declaration or affidavit.

Additionally, under Rule 16.4(d), a petition must be filed and served within one year of the original decision, absent other justification. This Petition complies with Rule 16.4(d), as it has been filed within a year of the December 14, 2017 approval.

### **IV. PETITION FOR MODIFICATION**

#### **A. Justification for Requested Relief**

PG&E is requesting that Decision 17-12-012 be modified to allow PG&E to replace TSPs and 60 kV conductors along the approximately 1.4-mile Southern Segment of the project rather than replace only the conductors. In early 2018, during inspections of the TSPs along this section, PG&E engineers noted uncertainties in the degraded conditions of the cross-arms due to interior corrosion in the connection compartments and weldments. Due to this issue, PG&E engineers expressed concerns that the structures, although currently compliant with General Order 95 for their existing uses, might not withstand reconductoring and that, over time, the integrity of the crossarms could be compromised if the condition was not abated. For these reasons, they recommended that all 21 TSPs in this project segment be replaced. As required by Rule 16.4, these changed facts are set out in the Declaration of Henry Ho, attached hereto as Attachment B.

As described in the Supplemental Proponent’s Environmental Assessment (“Supp. PEA”) attached as Attachment C, replacing the poles will allow PG&E to use and transfer both existing sets of 230 kV conductors that are collocated on the same poles – eliminating the need to reconductor 1.4 miles of the Geysers #12 230 kV line. Only the 230 kV conductors crossing Highway 101, approximately 400 feet, will be replaced with new 230 kV conductors. Minor changes are also proposed for the type of 60 and 230 kV conductors, and the insulator style. The revised proposal also eliminates the relocation of two wood poles and shortening of two street lights on the Southern Segment; they no longer pose a conflict to the new poles and will remain in place. (*See gen’ly Attachment C*, Supp. PEA, Sections 2.3.1 and 2.3.2, and supporting Declaration of Matthew White, attached hereto as Attachment D.)

**B. Changes Requested**

PG&E requests two minor changes to Decision 17-12-012 as well as one to a mitigation measure in the approved Mitigation, Monitoring and Reporting Program. In accordance with Rule 16.4(b), PG&E has proposed “specific wording to carry out all requested modifications to the decision” in Attachment A, attached.

**C. California Environmental Quality Act Compliance**

As indicated in the Supp. PEA attached as Attachment C, the revisions proposed to the approved project will not result in new significant impacts or substantially increase the severity of previously identified impacts. No new information of substantial importance has been identified, and none of the conditions described in Code of California Regulations, Title 14, §§15000, *et seq.* (“CEQA Guidelines”) Sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present. For this reason, PG&E requests adoption of an Addendum to support the project changes under Section 15164.

Although no new mitigation measures are necessary to reduce new impacts, one minor revision is requested to an existing mitigation measure that alters the way a potential impact is reduced while retaining the spirit and intent of the measure. The revision would allow PG&E to use a heavy-lift helicopter to install a pole near a school outside of school hours. (*See*

Attachment A.) Using the heavy-lift helicopter will minimize construction impacts.

**D. Electric and Magnetic Field (EMF) Compliance**

The CPUC has directed PG&E to adopt EMF no-cost mitigation measures when available, and low-cost options when they meet certain guidelines for field reduction and cost. Four percent of total project budgeted cost is the benchmark in implementing EMF mitigation, and mitigation measures should achieve incremental magnetic field reductions of at least 15%.

For this revised project, PG&E has prepared a revised Preliminary Field Management Plan, attached as Attachment E. It proposes to raise the height of thirty-nine structures in the school and residential land use areas by five feet taller than otherwise required to meet clearance requirements.

**V. CONCLUSION**

As discussed above and set out with specificity in Attachment A, PG&E seeks to modify Decision 17-12-012 in order to replace poles on an additional 1.4 miles of the project alignment.

Respectfully submitted,

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Attorneys for  
PACIFIC GAS AND ELECTRIC COMPANY

Dated: June 29, 2018

# ATTACHMENT A

## **Attachment A**

### **Proposed Modifications to Decision 17-12-012**

#### **Section 1, Page 1, Proposed Project**

Revise second sentence in this section:

The proposed project would include replacing poles along 8 miles of the Fulton-Hopland line, replacing poles and 60 kV conductors on 1.4 miles of the Fulton-Hopland line, collocated with the Geysers #12-Fulton and Geysers #17-Fulton 230 kV transmission lines (~~Geysers #12 or 230 kV lines~~), and making modifications to the Fitch Mountain Substation.

#### **Section 4, Page 6, Electric and Magnetic Field Management Plan**

Delete second paragraph in this section beginning with “Analysis of measures taken to reduce EMF exposure” and replace with the following paragraph:

PG&E’s analysis of measures to reduce EMF exposure is found in its preliminary revised FMP, which was developed in support of the revised project described in PG&E’s petition for modification. It proposes to raise the height of thirty-nine structures in the school and residential land use areas by five feet taller than otherwise required for meeting clearance requirements. A copy of the FMP for this project is attached as Attachment D to PG&E’s Petition for Modification.

#### **Mitigation, Monitoring and Reporting Program, Attachment A to Decision 17-12-012**

Revise MM Noise-3: Helicopter Activities, p. 4-25:

Helicopter LZs shall not be used for heavy lift helicopters ~~shall not be positioned~~ closer than 4,000 feet from schools while schools are in session.



# **ATTACHMENT B**

## **Attachment B**

### **BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Application of PACIFIC GAS AND ELECTRIC  
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A.15-12-005

(U 39 E)

### **DECLARATION OF HENRY HO IN SUPPORT OF PACIFIC GAS AND ELECTRIC COMPANY'S PETITION FOR MODIFICATION OF DECISION 17-12-012**

1. I, Henry Ho, make this declaration in support of Pacific Gas and Electric Company's (PG&E's) Petition for Modification of Decision 17-12-012. The statements in this declaration are true and correct to the best of my knowledge.

2. I am a civil engineer and senior consulting civil engineer for PG&E's Transmission Line Engineering Services – North, with an office at 6111 Bollinger Canyon Road in San Ramon, California, 94583. I obtained my Bachelor's and Master's degrees in civil engineering from the University of California at Berkeley, and am a committee member of the American Society of Civil Engineering Standard on Design of Steel Transmission Pole Structures, ASCE 48-11. I have been employed by PG&E for 28 years, and have extensive experience in the engineering of transmission line structures. I am the civil project engineer for PG&E's Fulton-Fitch Mountain Reconductoring Project.

3. In early January 2018, I was present during an inspection of the TSPs along the Southern Section of the project. After viewing the TSPs, I and other members of my team were concerned with uncertainties in the degraded conditions of the crossarms due to interior corrosion in the connection compartments and weldments.

4. Due to this issue, I was concerned that the structures, although compliant with General Order 95 for their existing uses, might not withstand the tensioning required for reconductoring and that, over time, the structural integrity of the crossarms could be

compromised if the condition was left unabated. I therefore recommended that all 21 TSPs in this segment be replaced.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on June 26, 2018, at San Ramon, California.

\_\_\_\_\_/s/  
Henry Ho

# ATTACHMENT C

# **Supplemental Proponent's Environmental Assessment**

## **Fulton-Fitch Mountain Reconductoring Project**

**Prepared for  
Pacific Gas and Electric Company  
June 2018**

**Prepared by**



1920 Old Middlefield Way  
Mountain View, CA 94043

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## **APPENDICES**

Appendix A: Detailed Project Plan
Appendix B: Aesthetics Figures

## **1.0 INTRODUCTION**

On December 18, 2017, the CPUC issued Decision 17-12-012 granting PG&E a Permit to Construct (PTC) the Fulton-Fitch Mountain Reconductoring Project and adopting the Final IS/MND (2017 Final MND) in compliance with the California Environmental Quality Act (CEQA)

PG&E is submitting this Supplemental Proponent’s Environmental Assessment (Supplemental or Supp. PEA) to address modifications to the project resulting from the need to replace poles on the southern segment of the project. All changes are located within the project footprint analyzed by the 2017 Final MND.

### **1.1 REVISIONS TO THE APPROVED PROJECT**

The approved project is located in central Sonoma County, between Fulton Substation and Fitch Mountain Substation, east of the Town of Windsor and the City of Healdsburg on the eastern margin of the Santa Rosa Valley. A description of the approved project location and the proposed modifications are provided in Chapter 2, Description of Project Modifications. Figure 2.2-1: Project Overview Map, in Chapter 2, depicts the location of the approved project and the proposed modifications.

The approved project includes replacing the conductor (reconductoring) on a 9.9-mile-long section of the Fulton-Hopland 60 kilovolt (kV) Power Line (Fulton-Hopland Line) between the communities of Fulton and Healdsburg, replacing poles along 8.1 miles of the Fulton-Hopland Line, replacing conductor on 1.3 miles of the Geysers #12-Fulton 230 kV Transmission Line (Geysers #12-Fulton Line), and making minor modifications to Fitch Mountain Substation.

To address corrosion issues that could potentially cause pole failure during reconductoring, PG&E proposes to replace poles along an additional 1.4 miles of the Fulton-Hopland Line between Fulton Substation and Shiloh Ranch Regional Park. Other minor modifications to the project due to the pole replacements are further described in Chapter 2.

### **1.2 ORGANIZATION OF THE SUPPLEMENTAL PEA**

Details of the proposed project modifications and related revisions in the construction plan are described below in Chapter 2, “Description of Project Modifications.” An analysis of these modifications is contained in Chapter 3, “Environmental Analysis.” The analysis of project modifications in Chapter 3 demonstrates that only minor changes to the 2017 Final MND are necessary to reflect the proposed modifications to the project, and none of the conditions described in Section 15162(a) of the CEQA Guidelines calling for preparation of a subsequent negative declaration would occur. Thus, an addendum to the 2017 Final MND is the appropriate mechanism to address these modifications to the project.

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## **2.0 DESCRIPTION OF PROJECT MODIFICATIONS**

### **2.1 INTRODUCTION**

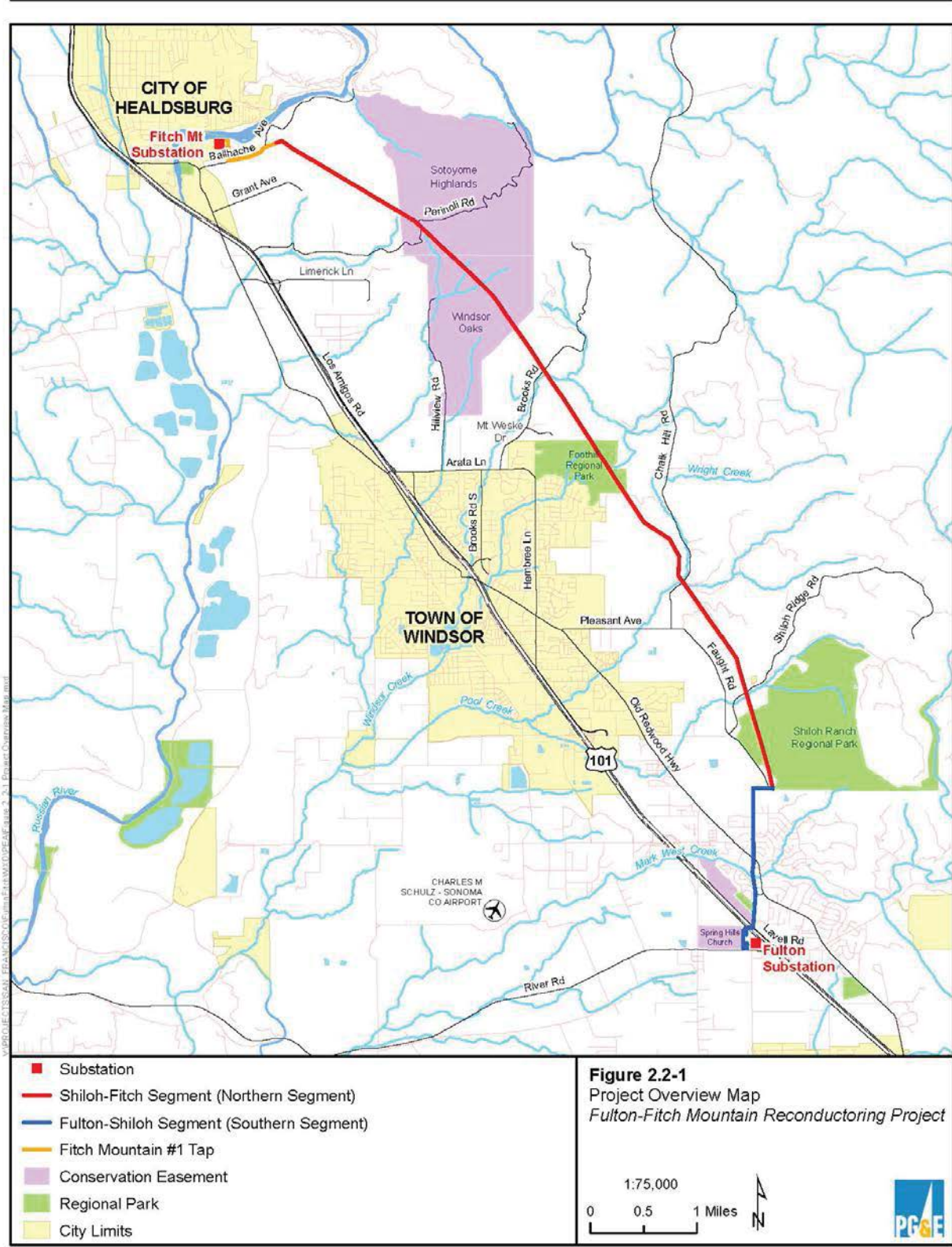
PG&E has determined that additional poles must be replaced on the Fulton-Fitch Mountain Reconductoring Project (approved project) that was approved by the CPUC following preparation of an IS/MND. The proposed Fulton-Fitch Mountain Reconductoring Project's pole replacements and related work (project modifications) will require modifications to the transmission line design and changes to the construction plan on the southern 1.4 miles of the project.

### **2.2 LOCATION AND OVERVIEW OF PROJECT MODIFICATIONS**

As shown in Figure 2.2-1: Project Overview Map, the Fulton-Fitch Mountain Reconductoring Project is located in unincorporated Sonoma County between the communities of Fulton and Healdsburg. The proposed project modifications consist of replacing 21 tubular steel poles (TSPs) along approximately 1.4 miles of alignment in the project's Southern Segment. These poles currently support the Geysers #12 and Geysers #17 230 kV transmission lines (Geysers 230 kV lines or 230 kV lines) as well as the Fulton-Hopland 60 kV Power Line (Fulton-Hopland line or 60 kV line). This segment is described in the project's 2017 Final MND at page 2.2-2.

No TPSs in the Southern Segment were previously identified for replacement, with primarily conductor replacement (reconductoring) planned for this segment. As project design progressed, PG&E engineers determined that interior corrosion in the connection compartments and weldments of the crossarms on the 21 additional poles could jeopardize the integrity of the poles during reconductoring. To address this safety concern, PG&E is proposing to replace the poles.

Figure 2.2-1: Project Overview Map



6/27/2018



## 2.3 PROJECT COMPONENTS

### 2.3.1 CONDUCTOR

#### 2.3.1.1 Southern Segment

Conductor for the Southern Segment was described in Section 2.5.1 Conductor of the 2017 Final MND (CPUC 2017, pages 2.11-2.13). The approved project consists of replacing existing 60-kV and 230-kV conductors along approximately 1.8 miles of alignment. As described in the 2017 Final MND, the Geysers-Fulton 230 kV line would only be reconductored where necessary to accommodate clearance requirements for the reconductored Fulton-Hopland line, which was limited to approximately 1.3 miles of the Geysers #12 line between Poles 7 and 21. The approved conductor replacement is summarized in Table 2.3-1, Approved and Proposed Reconductoring.

As described above, the proposed modifications would include replacing existing TSPs on approximately 1.4 miles of alignment in the Southern Segment. Because the new TSP crossarms are designed to sit higher on the pole and provide additional spacing between the lines and ground-clearance, the 230 kV conductors will not need to be replaced. Instead, the existing 230 kV conductors will be transferred from the existing TSPs to the new TSPs, except that approximately 400 feet of conductor on both 230 kV circuits crossing Highway 101 will be replaced as a safety measure. The proposed conductor transfer is summarized in Table 2.3-1 below.

**Table 2.3-1 Approved and Proposed Reconductoring**

Segment	Existing Lines	Voltage (kV)	Approved Project Reconductoring Length	Proposed Modifications Reconductoring Length	Proposed Length Transferred to New TSPs
Southern Segment (1.8 miles)	Fulton-Hopland	60	1.8 miles	1.8 miles	-
	Geysers #12-Fulton	230	1.4 miles	400 feet	1.3 miles
	Geysers #17-Fulton	230	-	400 feet	1.3 miles
Note: This table is preliminary and subject to change based on CPUC requirements, final engineering, ground conditions at time of construction, and other factors. All lengths are estimates and approximate.					

Minor changes are proposed for the type of new 60 kV conductors. The 2017 Final MND states that the existing 4/0 aluminum will be replaced with a combination of 477 *kcmil* aluminum composite steel-supported (ACSS) and 477 *kcmil* aluminum conductor composite reinforced. Because the new TSPs provide additional clearance, the existing 60 kV conductors will be replaced entirely with new 477 ACSS conductor.

Minor changes are also proposed for the 230 kV conductors. Between Pole 8 east of Highway 101 and Pole 23 in Shiloh Ranch Regional Park, the existing bundled 113 *kcmil* all-aluminum conductors (AAC) will be transferred to new poles. For the span crossing Highway 101, located between Pole 7a/7b at Fulton Substation and Pole 8 east of Highway 101, PG&E will replace both circuits of the existing bundled 113 *kcmil* AAC with single-strand 945 *kcmil* ACSS conductors to avoid conductor splices across Highway 101.

As shown in Figure 2.3-1, the existing 230 kV conductors consist of three bundled conductors arranged vertically on either side of the pole. The Geysers #12 circuit consists of the 230 kV conductors on the north and west sides of the pole; the Geysers #17 circuit consists of the 230 kV conductors on the south and east sides of the pole. The three 60 kV conductors that comprise the Fulton-Hopland Line are arranged in a vertical delta configuration, with two conductors on one side of the pole and one conductor on the other side.

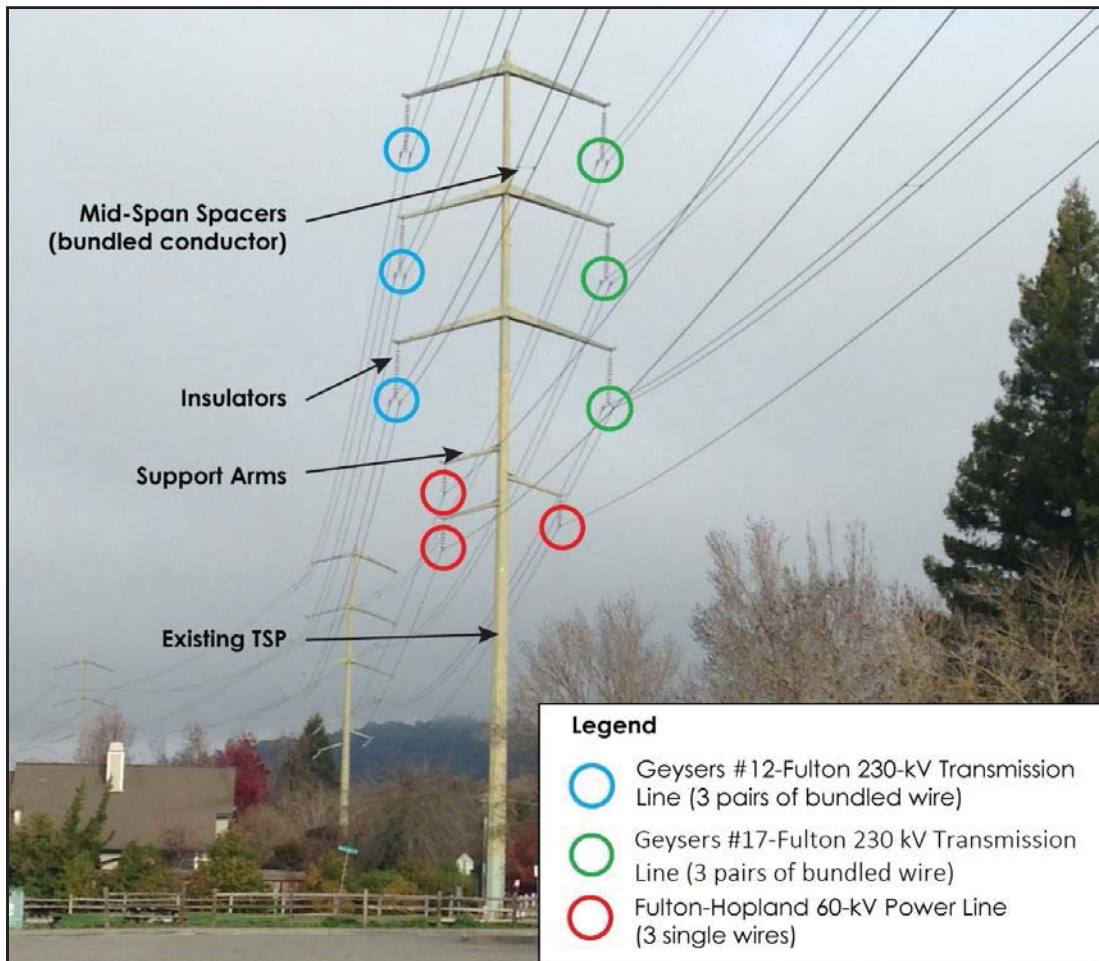
The existing transmission lines are supported by 21 poles, including 3 two-pole structures. As described in Section 2.3.2, the following pole replacements are proposed:

- **TSPs.** A total of 15 single-shaft TSPs will be replaced new TSPs.
- **Hairpin Structures.** There are three hairpin structures consisting of two individual TSPs joined at the top: Pole 8 is located on the east side of Highway 101; Pole 13 is located north of Mark West Creek; and Pole 21 is located north of Faught Road where the alignment changes direction at a right angle. Each hairpin structure will be replaced with two single-shaft TSPs.

The configuration of conductors on the new TSPs will not change, although the conductors currently on hairpin structures will be arranged on two structures. For the latter, the Geysers-Fulton #12 230 kV conductors will be arranged vertically on the north or west pole and the Geysers-Fulton #17 230 kV conductors will be arranged vertically on the south or east pole. Two of the 60 kV conductors will be arranged vertically below the Geysers-Fulton #12 and the third conductor of the 60 kV will be located below the Geysers-Fulton #17.

Minor changes are proposed to the insulator type. The 2017 Final MND states that new insulators will be primarily ceramic. Ceramic insulators were originally proposed for the Geysers#12 circuit and Fulton-Hopland Line in order to keep the type of insulation on the TSP the same as the Geysers #17 circuit. Now that the structures are being replaced, PG&E proposes to install toughened green glass insulator on all three circuits.



**Figure 2.3-1: Existing Conductor Configuration**

## 2.3.2 POLES

### 2.3.2.1 Southern Segment

The Southern Segment between Fulton Substation and Shiloh Ranch Regional Park is currently supported by 18 structures, including 3 multiple-pole structures, for a total of 21 tubular steel poles (TSPs). PG&E proposes to replace the existing TSPs with new TSPs to address corrosion issues and safely reconductor the line.

None of these TSPs were slated for replacement in the project as approved. However, in early 2018 during inspections of the TSPs along this section, PG&E engineers noted uncertainties in the degraded conditions of the crossarms due to interior corrosion in the connection compartments and weldments. Due to this issue, PG&E engineers expressed concerns that the structures, while compliant with General Order 95 for their existing uses, would not withstand the tensioning required for reconductoring and recommended that all 21 TSPs in this segment be replaced.

Existing and proposed pole counts for replacement poles are summarized in Table 2.3-2 below. Existing and proposed pole locations are shown on the Detailed Project Plan included in Appendix A.

**Table 2.3-2 Existing and Proposed Pole Totals in the Southern Segment**

Structure Type	Poles per Structure	Existing Structure Count	Total Poles	Proposed Actions	Resulting Structure Count	Resulting Poles
Self-supporting single-shaft TSP	1	13	13	• Replace 13 TSPs	13	13
Single-shaft TSP with down-guys	1	2	2	• Replace 2 TSPs • Remove down-guys	2	2
TSP hairpin structure	2	3	6	• Remove 3 hairpin structures • Install 2 self-supporting TSPs	6	6
<b>Total</b>	-	<b>18</b>	<b>21</b>		<b>21</b>	<b>21</b>
Note: This table is preliminary and subject to change based on CPUC requirements, final engineering, ground conditions at time of construction, and other factors.						

The existing poles range in height from approximately 126 to 136 feet. Crossarms that support the 230 kV conductor are approximately 14 feet long. Crossarms for the 60 kV conductor are approximately 7 feet long.

Replacement TSPs will typically be approximately 3-4 feet wide at the base and 1-2 feet wide at the tip and range in height from approximately 135 to 145 feet. Tangent poles will be used along straight portions of the alignment and two single-shaft poles will replace the existing hairpin structure when the run of poles changes direction. All TSPs will have concrete pier foundations measuring approximately 5 to 7 feet in diameter and 20 to 30 feet deep, and extending 1 to 2 feet above ground. Existing guy wires will be removed and structures will be free-standing. Proposed pole dimensions are provided in Table 2.3-3 below.

**Table 2.3-3 Proposed Pole Dimensions**

Pole Type	Aboveground Height (feet)	Crossarm Length (feet)	Belowground Depth (feet)	Foundation Type	Base Diameter/Area per Pole
TSP	135 to 145	7 to 14	20 to 30	Concrete pier <sup>a</sup>	5 to 7 feet/20 to 50 square feet
<sup>a</sup> Foundations will extend between one and two feet above ground Note: This table is preliminary and subject to change based on CPUC requirements, final engineering, ground conditions at time of construction, and other factors.					

The replacement TSPs will have a dull galvanized steel surface. New poles will be installed approximately 15-35 feet from the existing pole locations and in line with the existing conductors. Drawings of the typical designs for TSPs are provided in Figure 2.3-2 Typical Tubular Steel Pole.

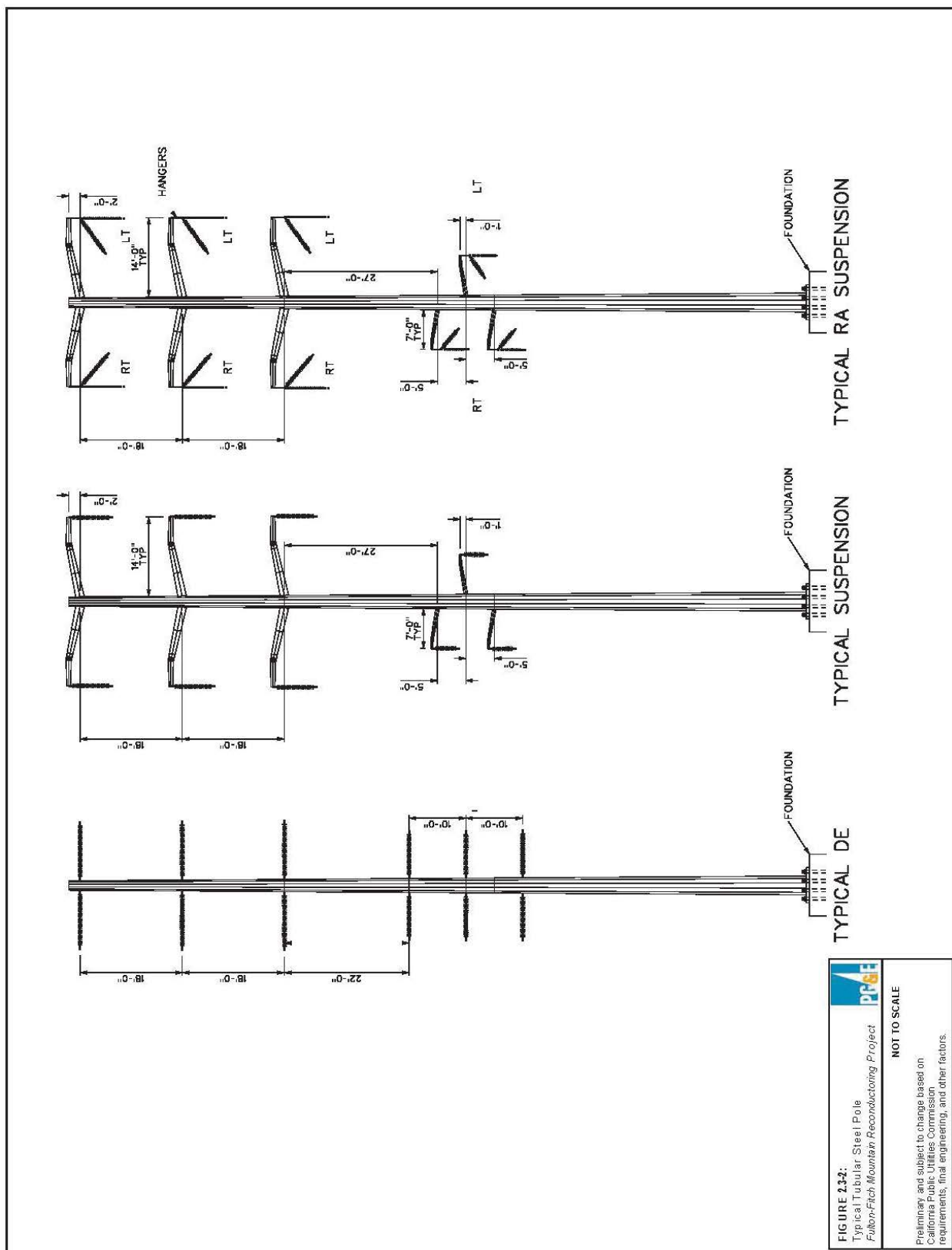
The 2017 Final MND included relocation of two wood poles for a 12-kV distribution line and lowering of two street lights along Faught Road between Manka Circle and El Mercado Parkways to meet clearance requirements specified in CPUC General Order 95. The replacement TSPs will provide adequate clearance between conductors and these structures; therefore, these structures will no longer need to be relocated or modified.

### **2.3.3 SUBSTATIONS**

#### **2.3.3.1 Fulton Substations**

No changes would occur at Fulton Substation as a result of the proposed modifications.

Figure 2.3-2: Typical Tubular Steel Pole



## **2.4 CONSTRUCTION**

### **2.4.1 OVERVIEW**

The following discussion is preliminary and based on typical construction practices and anticipated construction needs. Final design may require modifications to the expected work areas described in the following paragraphs; however, impacts associated with potential project refinements are not anticipated to differ from those described below.

### **2.4.2 WORK AREAS AND ACCESS**

The proposed modifications would be constructed using temporary work areas, access routes, and helicopters to facilitate equipment and material access to the project alignment, and to store equipment and materials during construction as described in section 2.6.2 of the 2017 Final MND. Work areas and access would be located within the project study area previously evaluated as part of the project's 2017 Final MND; minor changes to the proposed work areas and access are described below.

#### **2.4.2.1 Proposed and Alternate Sites**

Approved project Pull Site #6 will be used for crane pads for TSP removal and replacement at Pole 23 in Shiloh Ranch Regional Park. Restoration activities will be conducted with input from Sonoma County Parks Department.

#### **2.4.2.2 PG&E Easements and Access Rights**

PG&E has existing easements and access rights along the Southern Segment, but they may need to be modified or updated to reflect the adjusted pole locations.

#### **2.4.2.3 Ground Access**

Minor adjustments to approved access are proposed in order to provide access to Pole 22 using an existing unpaved road. A gate will be temporarily installed in a vineyard fence at the corner of Faught Road to provide direct access to the pole, which is located within 10 feet of the road. Following project construction, the fence will be repaired in coordination with the landowner.

#### **2.4.2.4 Aerial Access**

##### ***Flight Paths***

Helicopter flight paths in the Southern Segment are described on pages 2-23 and 2-24 of the Final MND. The approved project included use of a small helicopter for approximately 3 hours on 2 days to reach poles and mid-span locations that were either difficult to reach using standard ground access (Poles 12 and 13) or which were relatively distant from residences (Poles 8, 9, and 20 to 23). With the proposed modifications, Poles 8, 9, 12, and 13 will not be accessed by helicopter.

In order to reduce impacts to an active vineyard and a regional park, a heavy-lift helicopter will be used to transport workers and materials to and remove old pole segments from Poles 20 to 23. The heavy-lift helicopter would make approximately 15 trips to each pole. Each trip would last approximately 5 minutes. The heavy-lift helicopter would be used for up to 5 days.

#### **2.4.2.5 Pole Work Areas**

Pole replacement and removal for the TSPs will require an approximately 0.4-acre work area for both the site of pole removal and pole installation; because most pole replacement sites are within 25 feet of the existing pole, pole removal and installation work areas will mostly overlap. Preparation of pole work areas and restoration is described on pages 2-26 and 2-27 of the Final MND.

Construction materials will be delivered daily by flatbed truck or helicopter and staged near existing structures. Construction vehicles will access work areas primarily on existing paved roads, but may also use existing gravel or dirt roads or approved overland travel routes. Construction crews will access work areas by truck, helicopter, or on foot.

#### **2.4.2.6 Pull Sites**

Pull Site #4, located along the shoulder of Faught Road, will be removed from the project plan. This pull site was needed for reconductoring the 230 kV line; the pull site is no longer needed because the existing conductor will be transferred to new structures rather than replaced.

#### **2.4.2.7 Mid-Span Work Locations**

No changes are proposed to mid-span work locations.

#### **2.4.2.8 Vegetation Clearance**

Some additional vegetation clearance is proposed; all vegetation removal will be completed in accordance with PG&E's Revegetation, Restoration and Monitoring Plan for this project, approved by the CPUC on June 13, 2018, which requires PG&E to replace all trees and shrubs on a 1:1 basis.

#### **2.4.2.9 Ground Disturbance**

Ground disturbance for the approved project is described on pages 2-30 and 2-31 of the 2017 Final MND. For the modified project, the ground disturbance acres are within the range described in the MND. Cut and fill volumes will be increased due to the pole replacements; calculations will be provided.

### **2.4.3 SITE DEVELOPMENT**

Site development for the approved project is described on pages 2-31 and 2-32 of the 2017 Final MND.

Changes to grading and blading are proposed to prepare two crane pads at Pull Site #6. Under the current work plan, the proposed realignment of the work area for crane pads can be accomplished without impacting the seasonal watercourse SEW-1 that is potentially federally protected as defined by Section 404 of the Clean Water Act. In order to provide a flat, stable area for the cranes, soils excavated from TSP pole holes further south could be trucked to the site if necessary and used to build up the crane pads and the access road.



A temporary bridge will be placed over a culverted section of SEW 9A at Pole 21 to allow vehicle access to the pole. The temporary bridge will provide access to the pole from Faught Road, which will reduce the amount of vehicles traveling through the active vineyard.

#### **2.4.4 POLE REPLACEMENT**

##### **2.4.4.1 Pole Removal**

Pole removal in the Southern Segment will begin after all conductor is transferred to the new TSPs. Construction crews will use a plasma cutter to cut the TSP into sections. A crane will hold each section while it is being cut and then transfer the section onto a flatbed truck for disposal. TSP sections will be taken to a project staging area and picked up by a recycler. One TSP is painted with paint containing lead and will be removed using standard measures to reduce impacts from lead paint dust (to be incorporated in the Stormwater Pollution and Prevention Plan (SWPPP) required in MM Hydrology-1), such as matting or wetting the soil, appropriate signing and using the plasma cutter to vaporize the metal as it cuts the pole into sections for removal, preventing the release of lead dust into the air.

Following removal of the TSP structure, a backhoe, hoepick (jackhammer on the back of a backhoe), and jackhammer will be used to break up the top three feet of the foundation. Each foundation will take approximately two days to remove. Machinery will be actively excavating the foundation for approximately six hours during the workday. Machinery will be in use for up to an hour at a time. The excavated foundation will be transferred to a dump truck for disposal.

##### **2.4.4.2 Pole Installation**

Pole installation in the Southern Segment would begin during site development with digging and setting the TSP foundations. A highway digger or production digger would be used in tandem with a back truck to excavate the holes. The back truck liquefies and vacuums up dirt to safely expose underground facilities in areas with co-located utilities. Excavated dirt would be transferred to dump trucks for transport to Pull Site #6 to build up the crane pad, spread on site, or used as backfill. In the event that excess dirt requires disposal, it will be tested and disposed of at a landfill.

As described in Section 2.6.4 of the Final MND, a line truck would be used to place foundation forms, anchor bolts, and rebar in the holes for concrete-pier foundations, and a concrete truck would be used to deliver and pour concrete for the foundation form. Approximately 46 cubic yards per pole will be needed, or approximately 5 truckloads of concrete.

The concrete foundations will be allowed to cure for approximately 6 weeks. Once the concrete has set, the form would be removed. A flatbed truck will be used to deliver TSP sections to the pole site the day of installation. A crane will be used to set the new TSP in sections on the foundation. Additional hardware, such as crossarms, would be added to the poles using a crane with a worker attachment.

#### **2.4.5 RECONDUCTORING**

The approved project reconductoring is described in Section 2.6.5 of the 2017 Final MND.

#### **2.4.5.1 Power Clearance and Grounding**

The power clearance process for the approved project is described on pages 2-38 and 2-39 of the 2017 Final MND. As described in the Final MND, a portion of the Fulton-Hopland Line and the Geysers-Fulton Line would be taken out of service for periods of time while they are being worked on. As in the approved project, a switch would be installed between the Geysers #12 and Geysers #17 circuits north of the project alignment. For the proposed modifications, power clearance and grounding will generally follow these steps:

1. The Geysers #12 would be de-energized. Approximately 5 angle poles would be set and the Geysers #12 conductor would be partially transferred to the replacement poles.
2. The Geysers #12 will be re-energized and the Geysers #17 will be de-energized. The remaining pole structures would be set and the Geysers #17 transferred to the replacement poles.
3. The Fulton-Hopland Line will be reconductored.
4. The Geysers #17 will be re-energized and the Geysers #12 will be de-energized to complete transfer of the Geysers #12 conductor to the replacement poles.

#### **2.4.5.2 Conductor Removal**

Conductor removal for the approved project is described on pages 2-39 through 2-41 of the 2017 Final MND. Removal of the 60 kV conductor and two 400-foot sections of the Geysers #12 and Geysers #17 between Fulton Substation and Pole 8 east of Highway 101 will proceed as described in the Final MND with overnight installation of safety netting over the highway. PG&E will install a second net below the Geysers #17 line at the same time as installation of the approved project netting below the Geysers #12.

#### **2.4.5.3 Conductor Installation**

Conductor installation for the approved project is described on page 2-41 of the 2017 Final MND. Installation of the 60 kV conductor and two 400-foot sections of the 230 kV conductor will proceed as described in the Final MND. The 60 kV conductor will be installed as underbuild after the Geysers #17 circuit is transferred to the replacement TSPs.

#### **2.4.5.4 Conductor Transfer**

Conductor for both circuits of the 230 kV Geysers-Fulton Line will be transferred from the old poles to the replacement poles. Workers would close off a section of the road to transfer portions of the Geysers #12 circuit to the new TSPs. First, the road would be closed to traffic and cranes would be set up at a pair of structures. Workers would use a crane to access and remove midspan spacers on the Geysers #12. The conductor would be unclipped from existing poles and transferred by crane to rollers on the north and east crossarms on the replacement TSPs. Crews would then reopen the road to traffic and close the road between the next two structures, repeating the process until the first group of poles have been set and the Geysers #12 conductor transferred.



Workers would then set the remaining poles, remove mid-span spacers, and transfer the Geysers #17 to rollers on the replacement poles. New mid-span spacers would be installed and the Geysers #17 conductor sag between poles would be adjusted to pre-calculated levels by tightening or loosening the line tension. Workers will then work their way along the line to clip the conductor in to the pole insulators and remove rollers. The conductor would be clipped in to the pole insulators and the rollers would be removed in the same manner as they were installed using helicopters, bucket trucks, or line trucks, and mid-span spacers, vibration dampers, and any other final hardware would be installed.

Once the Geysers #17 is clipped in, the Fulton-Hopland 60 kV conductor will be installed as underbuild and the tension adjusted as described in Section 2.6.5 of the 2017 Final MND.

The remaining midspan spacers on the Geysers #12 will be removed and the conductor transferred as described above. Mid-span spacers will then be installed and tension on the Geysers #12 adjusted.

New conductor would be installed across Highway 101 and spliced to the transferred conductor at Pole 8.

#### **2.4.6 EROSION, SEDIMENT, AND POLLUTION CONTROL**

If water is discovered during excavation of the poles, dewatering may be needed. PG&E will implement the SWPPP in accordance with MM Hydrology-1, which will include standard measures for dewatering.

#### **2.4.7 TRAFFIC CONTROL**

Traffic control for the approved project is described in Section 2.6.8 of the Final MND. In addition to partial lane closures described in the project's 2017 Final MND, the project would be modified to include closing sections of roads while the new TSPs are set, conductor is transferred, and the old TSP removed. Blocks would be intermittently closed between Faught Road to Lavell Road for up to 2 days at a time. PG&E would implement an approved traffic plan that would include such measures as installing detour signs at both ends of the road closure to route traffic around the construction area, flagging, and provisions for emergency vehicle access. Residents will be notified in advance of road closures.

Road closures in front of schools will occur on weekends or other days when school is out of session.

#### **2.4.8 WATER USE**

No changes are anticipated to water use.

#### **2.4.9 WASTE DISPOSAL**

Approximately 1,000 cubic yards of solid waste from old TSPs and hardware will be generated. Approximately 100 cubic yards of concrete will be generated. Old TSPs and metal hardware will be transferred to Alco Iron and Metal for recycling.

#### **2.4.10 CLEANUP AND RESTORATION**

Cleanup and restoration will proceed as described in Section 2.6.11 of the Final MND.

#### **2.4.11 EQUIPMENT AND WORKFORCE**

The approved project workforce and equipment are described in the Final MND on page 2-44 and in Table 2.6-7 (pages 2-45 to 2-48). A revised list of construction categories and activities, estimated crew members that would be needed, and the types of equipment that would be used during construction and operation are provided in Table 2.4-1. Insertions to the table are underlined, and deletions are struck out.

#### **2.4.12 SCHEDULE AND TIMING**

##### **Work Schedule**

The approved project schedule is described in Section 2.6.13 Schedule and Timing in the Final MND. As described, the approved project would take approximately 12 months to construction. With the proposed modifications, the project would require an additional month of construction for a total of 13 months of construction. Construction on the Southern Segment is tentatively planned to begin in October 2018 and be completed in April 2019. The proposed modifications to the construction schedule and duration are listed by location in Table 2.4-2.

##### **Work Periods**

The total duration of each construction stage is listed in Table 2.4-2.

Table 2.4-1 Revised Typical Construction Equipment and Duration of Use

General Category and Crew Members <sup>a</sup>	Construction Activity	Southern	Northern	Equipment		Estimated Operation		
				Quantity/Name	Days/ Week	Hours/ Day	Total Weeks	
Site Development 2-16 crew members	Survey	✓	✓	1 Pickup truck	4	8	5	
	Vegetation Clearing	✓	✓	1-2 Pickup truck	6	10	5	
				1-2 Bucket truck	6	10	5	
				1-2 Chipper truck with chipper	6	10	5	
				1 Rubber-tracked mower	2	4	6	
	Grading and Blading, and Gravel and Geotextile Fabric Installation (i.e., site improvement and reestablishment)	✓	✓	1 D4 dozer	4	8	7	
				1 Pickup truck	4	8	4	
				4± Semi-truck with trailer	5±	104	4	
				1 Water truck	4	6	4	
				2 Excavator	4	8	7	
Pole Replacement (Removal/Installation) & Reconductoring 21 crew members	Drainage Crossing Establishment	✓ N/A	✓	1 Compactor	4	8	7	
				1 Crawler backhoe	4	4	4	
				1 Pickup truck	4	4	4	
				1 Crane	4	4	1	
				1 UTV with excavator	5	6	6	
	LDSP Hole Auguring	N/A	✓	1 Pickup truck	5	6	6	
				1 Line truck with auger attachment	5	6	2	
				1 Crawler mounted auger	5	6	5	
	TSP Hole Auguring	✓ N/A	✓					

General Category and Crew Members <sup>a</sup>	Construction Activity	Southern	Northern	Equipment	Estimated Operation		
				1 Highway digger or production digger	5	6	8
				1 Dump truck	5	86	85
				1 Water truck	5	8	8
				1 Back truck	5	8	8
				1 Shiftlet truck	4	6	2
	LDSP and TSP Delivery	N/A	✓	3 Flat-bed trailer and truck	5	8	4
				2 Forklift or grade-all	5	8	4
				2 100-ton Crane	5	8	4
	LDSP Installation	N/A	✓	1 Crew-cab truck	7	6	4
				1 Utility task vehicle (UTV) with worker-lift attachment	5	4	6
				1 Line truck with trailer	7	6	2
				1 UTV mounted with hydraulic jack	4	6	12
				1 Backhoe	5	6	15
	TSP Installation (with Concrete Pier Foundation)	✓ N/A	✓	1 Jackhammer	4	6	12
				1 Compressor	5	4	15
				4+ Crane	55	6	166
				4+ Boom truck	55	76	166
				2+ 2-ton rigging truck	55	26	166
				5+ Crew-cab truck	57	26	166
				3+ Pickup truck	57	26	166

Section 2.0 – Description of Project Modifications

General Category and Crew Members <sup>a</sup>	Construction Activity	Southern	Northern	Equipment		Estimated Operation		
				6+		52	56	83
TSP concrete foundation removal	N/A	✓	✓	1	Cement truck	5	8	8
				1	Water truck	5	8	8
				1	Crew-cab truck	5	2	9
				1	Pickup truck	5	2	9
				1	Jackhammer	5	6	9
				1	Backhoe	5	6	9
				1	Backhoe with hydraulic jack attachment	5	6	9
				1	Compressor	5	6	9
				1	Crane	5	6	6
				1	Boom truck	5	6	6
				1	2 ton rigging truck	5	6	6
				1	Crew-cab truck	7	6	6
TSP Installation (with Micropile Foundation)	N/A	✓	✓	1	Pickup truck	7	6	6
				1	Platform-mounted componentized micropile drill	7	6	6
				2	Compressors	7	6	6
				1	Jackhammer	7	6	6
				1	Grout plant and transfer pump	7	6	6
				1	Boom truck	7	4	10
				1	F550 truck	5	2	10
				1	Bucket truck	1	6	2
Miscellaneous Transport	✓	✓	✓					
Guard Structure	✓	✓	N/A					

General Category and Crew Members <sup>a</sup>	Construction Activity	Southern	Northern	Equipment		Estimated Operation		
<b>Installation at US 101 Crossing</b>  <b>Reconductoring (Poles and Mid-Span Locations)</b>  <b>Reconductoring (Pull-and-Tension Sites)</b>  <b>Helicopter Transport and Reconductoring Support</b>  <b>Cleanup and Restoration</b> (within the easement and includes removing temporary drainage crossings)  6 crew members	Installation at US 101 Crossing			2	Pickup trucks	1	6	2
				1	Crew cab	1	6	2
	Reconductoring (Poles and Mid-Span Locations)	✓	✓	<del>43</del>	100-ton cranes (or alternatively a boom truck, bucket truck, or line truck with a worker attachment)	7	<del>107</del>	<del>1613</del>
				<del>43</del>	Pickup trucks	7	<del>107</del>	<del>1615</del>
	Reconductoring (Pull-and-Tension Sites)	✓	✓	1	Line truck with wire reel attachment or trailer	7	7	<del>183</del>
				<del>43</del>	Pickup truck	7	7	<del>1815</del>
				1	Puller attached to line truck	7	7	<del>1813</del>
				1	Tensioner attached to line truck	7	7	<del>1813</del>
	Helicopter Transport and Reconductoring Support	<del>N/A</del> ✓	✓	1	Crew-cab truck	7	4	4
				2	Helicopter (small)	7	10	17
				1	Helicopter (large)	7	10	9
		✓	N/A	<del>1</del>	<del>Helicopter (large)</del>	<del>5</del>	<del>7</del>	<del>2</del>
		✓	✓	1	Motor grader	5	4	8
<b>Fitch Mountain Substation Modifications</b> (includes				1	D6 dozer	5	4	3
				1	Semi-truck with trailer	5	2	8
				1	Pickup	5	6	8
				<del>1</del>	<del>Crane</del>	<del>1</del>	<del>6</del>	<del>1</del>
		N/A	N/A	1	Bobcat	4	10	12

General Category and Crew Members <sup>a</sup>		Construction Activity	Southern	Northern	Equipment		Estimated Operation		
restoration and cleanup)					1	Excavator	4	10	12
6-8 crew members					1	Forklift	4	10	12
					1	Crane	4	10	12
					1	Boom truck	4	10	12
					1	Man lift	4	10	12
					1	Vertical drill rig	4	10	1
					3	Crew-cab trucks	5	10	3
Fitch Mountain Substation Paving (within existing fence line) 6-8 crew members			N/A	N/A	1	Skip loader	5	10	3
					1	Skip steer	5	10	3
Insertions to the table are underlined, and deletions are struckout.									
Notes:									
<sup>a</sup> The number of crew members needed would be greater if concurrent sub activities were occurring at multiple locations along the project alignment. It is estimated that between 15 and 50 workers would be present at the project site at any given time during construction.									

**Table 2.4-2 Modified Construction Schedule**

Construction Activity	Period Start	Period End	Estimated Duration
<b>Southern Segment</b>			
Site Development	<u>October 2018</u> <del>February 2019</del>	<u>January 2019</u> <del>February 2019</del>	<u>4 months</u> <del>4 weeks</del>
<u>Dig and Set TSP Foundations</u>	<u>October 2018</u>	<u>January 2019</u>	<u>4 months</u>
<u>Set TSPs, Reconductor 60 kV, and Transfer Geysers #12</u>	<u>December 2018</u>	<u>April 2019</u>	<u>5 months</u>
<u>Transfer Geysers #17, Remove Old TSPs</u>	<u>March 2019</u>	<u>May 2019</u>	<u>3 months</u>
<del>Conductor Removal and Installation</del>	<del>March 2019</del>	<del>April 2019</del>	<del>2 months</del>
Cleanup and Restoration	May 2019	<u>June</u> <del>May</del> 2019	4 weeks
<b>Total Segment Construction</b>	<u><b>October 2018</b></u> <del><b>February 2019</b></del>	<u><b>June</b></u> <del><b>May</b></del> 2019	<u><b>8</b></u> <del><b>4</b></del> months
<b>Total Project Construction</b>	<b>June 2018</b>	<b>May 2019</b>	<u><b>13</b></u> <del><b>12</b></del> months
Note: Insertions to the schedule are underlined, and deletions are struckout.			

## 2.5 OPERATION AND MAINTENANCE

Operation and maintenance of the approved project is described in Section 2.7 “Operation and Maintenance” of the 2017 Final MND (CPUC 2017, pages 2-51 to 2-52. No changes are proposed to operation and maintenance.

## 2.6 PERMITS AND APPROVALS

Permits and approvals that may be required for the approved project are described in Section 2.8 “Permits and Approvals” of the 2017 Final MND (CPUC 2017, pages 2-52 to 2-54. No additional permits or approvals are anticipated as a result of the proposed modifications.

## 2.7 ELECTRIC AND MAGNETIC FIELDS (EMF)

In response to a situation of scientific uncertainty and public concern, the CPUC requires PG&E to consider “no-cost” and “low-cost” EMF measures, where feasible, to reduce exposure from new or upgraded utility facilities. The CPUC has directed PG&E to adopt no-cost mitigation measures when available, and low-cost options when they meet certain guidelines for field reduction and cost. Four percent of total project budgeted cost is the benchmark in implementing EMF mitigation, and mitigation measures should achieve incremental magnetic field reductions of at least 15%.

For this project, PG&E has prepared a revised Preliminary Field Management Plan, attached as Exhibit E to PG&E’s Petition for Modification. It proposes to raise the height of thirty-nine structures in the school and residential land use areas by five feet taller than otherwise required for meeting clearance requirements. The estimated cost of this mitigation is \$265,000.



## **3.0 ENVIRONMENTAL ANALYSIS**

### **3.1 AESTHETICS**

#### **3.1.1 DEFINITIONS**

This discussion adopts the definitions include Section 3.1.1 of the 2017 Final MND (CPUC 2017: Final MND pages 3.1-1 to 3.1-2).

#### **3.1.2 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.1.2 of the 2017 Final MND described the approved project site and vicinity in terms of visual character and quality, light and glare, and views of and from the project site (CPUC 2017: Final MND pages 3.1-2 to 3.1-10). That discussion is hereby incorporated by reference. In addition, the following discussion describes visual character and quality, light and glare, and views of the proposed pole replacements that were not described in the 2017 Final MND.

#### **Proposed Pole Replacements**

The proposed pole replacements are located in the Southern Segment, where a total of 21 existing structures including 13 existing TSPs, 2 existing TSPs with guy wires, and 3 two-pole “hairpin” structures would be removed and replaced with 21 new TSPs along the existing project alignment. As outlined under Section 2.3.2 of the Project Description, new poles will be installed within approximately 15-35 feet of the existing pole location and in line with the existing conductor. Detailed maps of the replacement pole locations are included in Appendix A.

The replacement TSPs will have a dull galvanized steel surface. Existing poles range in height from approximately 126 to 136 feet whereas the new pole heights will be approximately 135 to 150 feet. The length of existing and proposed replacement crossarms will be the same 14 feet for crossarms supporting 230 kV conductor and 7 feet for crossarms supporting 60 kV conductor.

As outlined in Section 2.3.1.1 of the Project Description, proposed project modifications also include minor changes to the types of insulators and conductors. Because the change in visual appearance of conductors and insulators associated with these modifications would be negligible, it generally would not be noticeable to the casual observer. Additionally, to meet clearance requirements specified in CPUC General Order 95, the approved project included relocation of two wood poles for a 12-kV distribution line and lowering of two streetlights along Faught Road between Manka Circle and El Mercado Parkways. Because the replacement TSPs will provide adequate clearance between conductors and these structures, the modification or relocation of these structures will no longer be needed. No changes would occur at Fulton Substation as a result of proposed modifications. In light of the nature of the proposed modifications described above, the Aesthetics analysis is focused on effects associated with replacing 21 existing structures with 21 approximately 15-foot-taller new TSPs.

Modifications to the existing project will occur within the Southern Segment, which traverses the U.S 101 corridor and the developed, primarily residential community of Larkfield-Wikiup as

well as a limited, less-developed area along Faught Road and within the southeastern edge of Shiloh Ranch Regional Park.

The following discussion is based, in part, on fieldwork and photography completed in March and May 2018. Figures 3.1-2(a–f): Photographs of the Project and Vicinity present a set of twelve photographs taken from key representative locations within the project viewshed (Photographs A-1 through A-12).<sup>1</sup> Discussion of these photographs supplements descriptions contained in the MND and provides additional detail about the visual landscape character in the vicinity of the modified project.

This section contains descriptions of representative views and visual character, and also includes a discussion and evaluation of visual changes associated with the modified project. The evaluation of visual changes is supported by Figures 3.1-3a through 3.1-6b, a set of visual simulations showing existing and post-project views from four key observation points (KOPs). The KOP locations were selected in consultation with the CPUC.

For purposes of describing existing visual conditions, the Southern Segment is divided into two subareas or landscape units entitled the South Landscape Unit and the North Landscape Unit. Figure 3.1-1 depicts the location of these landscape units as well as the location of photograph viewpoints. A key map in the upper right corner of Figure 3.1-1 shows the Southern Segment in relationship to the overall location of the approved project.

#### South Landscape Unit: US 101- Larkfield Wikiup (Photographs A1 through A8)

Beginning near Fulton Substation at the Highway 101 crossing, the South Landscape Unit extends north approximately 1.1 miles. After crossing the highway, the route parallels the west side of Lavell Road for approximately 0.3 miles (approximately 2,000 feet), where it passes a public park, an elementary school, and single family one and two-story residences. The route then continues north for approximately 1,500 feet within existing rights-of-way situated in close proximity to primarily single-family residences, while also crossing the heavily-wooded Mark West Creek corridor and Old Redwood Highway. The alignment then continues north along Faught Road. This landscape unit extends for another approximately 0.5 miles or 2,500 feet, to the edge of the developed Larkfield Wikiup neighborhood and ends along Faught Road near the intersection with Carriage Lane. In this area, the route parallels the east side of Faught Road, passing residences located along both sides of the roadway and an elementary school campus on the east side.

Photographs **A1** and **A2** are two motorist views toward the project crossing, taken respectively from north and southbound Highway 101. The two photographs show intermittent clusters of redwoods along both sides of the highway, including a group of trees on the west side of the roadway that partially screens motorists' views of the substation and two project poles at the crossing. These photographs also show that portions of the substation and other transmission structures are visible from both travel directions, although the redwoods provide slightly more

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<sup>1</sup> All figures for Section 3.1 can be found in Appendix B.

screening with respect to southbound motorist views. One project pole and other vertical structures situated on the east side of the roadway are also noticeable built elements along with overhead conductors that are seen silhouetted against the sky. As discussed in the evaluation of visual change below, the Photograph A1 viewpoint is a KOP used for visual simulation to show the modified project from this heavily-traveled, eligible state scenic highway and designated County Scenic corridor (refer to Figure 3.1-3).

**Photograph A3**, taken near one of the children's play areas and baseball fields, is a view from Maddux Regional Park, an 11-acre public open space with active multi-use sports and baseball fields, picnic tables, two children's playgrounds, and a parking lot. Landscaping in the park includes areas with informal groups of canopy trees and open lawn area as well as pathways with benches. The park has street frontage along two public streets - Noonan Ranch Lane, a winding residential street and Lavelle Road, which bisects the baseball field areas. As discussed below, the Photograph A3 viewpoint is a selected KOP for a visual simulation to show the modified project from this developed regional park (refer to Figure 3.1-4).

**Photograph A4** is a view comparable to Figures 3.1-3 and 3.1-4 in the 2017 MND showing a view from the Mark West Springs Elementary School, located along the east side of Lavell Road and within 200 feet of the project route. The school campus includes low-rise modern school buildings, grass covered sports fields, paved play area, landscaping, and two parking lots. This view shows a portion of the outdoor play area and one on the school buildings as well as the upper portions of three project poles with overhead conductor. As discussed below, the Photograph A4 viewpoint has been selected as a KOP to show the modified project's appearance as seen from the elementary school campus (Figure 3.1-5a and 3.1-5b).

**Photograph A5** is a view from Noonan Ranch Circle looking north toward one of approximately 9 project poles that are situated in close proximity to the residences within the Larkfield Wikiup neighborhood. In this view, overhead conductors and the upper portion of an existing project pole can be seen silhouetted against the sky, beyond two-story residences. **Photograph A6**, taken from Old Redwood Highway approximately 500 feet north of Mark West Creek, shows the project power line where it crosses the roadway. From this location, a mix of commercial and residential buildings and mature landscaping as well as a variety of utility structures such as streetlights, and wood and steel poles, including two existing project TSPs, are visible.

**Photograph A7** is a view from Airport Road near Faught Road taken where the project crosses this residential street. On the left, canopy trees partially screen a two-story house that is set back from the street. Near the center of this view, tree canopy also screens the lower portion of a project pole, whereas the upper half of this structure and overhead conductors are seen silhouetted against the sky. This photograph is somewhat typical of views within the residential area located north and south of Mark West Creek, and illustrates the existing power line's close proximity to a number of residences.

**Photograph A8** is a view from Faught Road looking south toward the project alignment near San Miguel Elementary School and Corbett Circle. In the foreground on the left, low-rise buildings and parking lots at the San Miguel Elementary School campus are set back from the roadway. A prominent project pole is also seen on the left, silhouetted against the sky, along

with the upper part of a second project pole as well as a streetlight in the immediate foreground. From this location, overhead conductors are visible along both sides of the roadway.

The following discussion describing visual change associated with the modified project within the North Landscape Unit is illustrated by pairs of existing and post project views, as seen from three KOPs (Figures 3.1-3a through 3.1-5b). For purposes of comparison, it may be noted that the Figures ending in “a” are existing views that represent the appearance of the approved project, whereas the corresponding Figures ending in “b” are simulated views showing the appearance of the modified project.

**Figures 3.1-3a and 3.1-3b** show an existing view and simulation of the modified project as seen from northbound Highway 101. Figure 3.1-3a shows a group of trees on the west (left) side of the roadway that partially screens motorists’ views of the substation and two project poles on the left, while a project two-pole “hairpin” structure and other vertical structures situated on the east (right) side of the roadway are noticeable built elements along with overhead conductors seen silhouetted against the sky. The Figure 3.1-3b simulation shows the two slightly taller replacement poles on the west (left) side of the roadway would continue to be partially screened by some of the redwoods, whereas on the east (right) side of the roadway, a pair of slightly-taller TSPs would replace the existing two-pole “hairpin” structure. While slightly different in design than the “hairpin” structure, the number and width of cross-arms on each TSP are the same as those on the “hairpin” structure. As with the existing poles, the upper part of these new replacement poles would be seen silhouetted against the sky, while the lower portion would be visible against a backdrop of redwoods. A comparison between the existing and post-project views demonstrates that the line, form and color of the existing and replacement poles is comparable and there would not be a noticeable change in the appearance of overhead conductors. The overall effect would be a minor and incremental change that would not substantially alter the existing composition and character of landscape views experienced briefly by motorists traveling along the highway.

**Figure 3.1-4** is a view from Maddux Regional Park near the children’s play area showing the entry path to the park with overhanging tree canopy and a wood bench in the foreground. A chain link fence topped by a bright yellow safety rail that encloses one of the baseball fields is a prominent horizontal landscape element in this view. Vertical elements seen beyond the ball field and backstop structures within the park landscape include redwoods situated along the Highway 101 corridor as well as project poles and portions of Fulton Substation visible against the sky. The Figure 3.1-4b visual simulation shows the modified project including a replacement TSP on the far left and two new TSPs to its right, which replace an existing two-pole “hairpin” structure. The height of the new TSP on the far left is slightly shorter than the pole it replaces, while the height of the pair of replacement TSPs is approximately the same as the height of the existing two-pole structure being replaced. The number and width of the replacement cross-arms on the new structures are the same as those on the existing structures. In addition, two approximately ten-foot taller TSPs seen further away on the right replace two existing TSPs. A comparison of the existing and the post-project views indicates that the existing and new structures are quite similar in terms of scale, line, form, and color. The Figure 3.1-4 before and after views also demonstrate that the Modified Project would not substantially alter the existing park landscape or the existing character and quality of the view experienced at this location.

Similar to the 2017 Final MND Figures 3.1-3 and 3.1-4, **Figure 3.1-5a** presents an existing view of the approved project looking south from the Mark West Springs Elementary School campus. Built elements seen from this location include a gray concrete masonry retaining wall topped with a black metal rail fence and multi-colored play equipment in the foreground. Part of a single-story school building provides a backdrop for these features. Silhouetted against the sky, several mature trees and project poles are vertical landscape features seen from this location. The Figure 3.1-5b visual simulation shows a slightly taller replacement TSP silhouetted against the sky on the right in a comparable location to the pole it replaces, and on the left side of the conifers another slightly taller TSP replaces an existing TSP. Although their design differs slightly, the number and width of the replacement cross-arms on the new structures are the same as those on the existing structures. Additionally, the top portions of two new TSPs that replace existing “two-pole “hairpin structures are visible further away to the left. A comparison of the existing view and visual simulation demonstrates that the existing and replacement structures would be similar in line form, color, and scale. As such, the visual change associated with the modified project would be minor and incremental. The effect would not substantially alter the existing visual character or composition of the landscape seen from the elementary school campus.

#### North Landscape Unit: Faught Road-Shiloh Ranch Regional Park (Photographs A9 through A12)

The North Landscape Unit extends north and then curves east along Faught Road, as the project continues to parallel the roadway for another approximately 0.3 miles (or approximately 2,000 feet), then travels east approximately 900 feet into Shiloh Ranch Regional Park before terminating. Beginning at the northern edge of the developed Larkfield Wikiup community, this landscape unit ends near the southwest edge of a regional public open space. Compared to the longer, South Landscape Unit described above, the visual character of the smaller North Landscape Unit is noticeably more rural, and the built environment reflects a lower density development pattern.

Taken within the North Landscape Unit, **Photographs A9** and **A 10** are two views looking toward the project alignment from Faught Road. **Photograph A9** is an eastbound motorist view showing overhanging roadside tree canopy and a rural residence in the foreground. In this area, views from the road toward the project are substantially screened by a combination of overhead tree canopy and dense vegetation situated at the edge of and within Shiloh Ranch Regional Park. In a view looking west from Faught Road near the South Ridge Trail access point to Shiloh Ranch Regional Park, **Photograph A10** shows a close range open view of the project alignment including overhead conductors, a prominent TSP silhouetted against the sky, and the upper portion of a two-pole “hairpin” structure seen beyond. To represent visual change within the North Landscape Unit, the Photograph A10 viewpoint has been selected for a KOP visual simulation showing the modified project from this designated County Scenic corridor near trail access to the regional park (refer to Figure 3.1-6).

The project power line traverses approximately 900 feet of Shiloh Ranch Regional Park, an 860-acre open space situated along the eastern flank of the Santa Rosa Valley. A network of recreation trails traverse the regional park landscape, which is comprised primarily of densely, wooded slopes. Where not enclosed by dense vegetation, trail views encompass more distant



landscape features including ridge tops and the valley below. While the approved project included reconductoring within this regional park, the proposed project modifications include replacement of one existing pole situated adjacent to the South Ridge Trail. **Photographs A11 and A12** are two views taken along the South Ridge Trail looking toward the project alignment. These photographs portray the dense vegetation pattern found within the park. **Photograph A11** is a close range view of the project power line from the trail, showing only a limited part of the existing utility pole surrounded by dense vegetation. As shown in **Photograph 12**, as seen from further east where the trail traverses an open grassy area, the upper part of this existing pole can be seen silhouetted against the sky.

Figures 3.1-6a and 3.1-6b are respectively an existing view paired with a simulated view of the proposed project modifications as seen from Faught Road near the South Ridge Trail access point to Shiloh Ranch Regional Park. This view shows the tree-lined Faught Road and part of a vineyard in the foreground. Dense tree canopy and undulating ridgelines can be seen in the backdrop. From this location, three project poles are visible including a closer prominent TSP and a two-pole “hairpin” structure beyond it along with overhead conductors seen silhouetted against the sky. Figure 3.1-6b visual simulation shows the proposed pole replacement structures, including a taller replacement TSP in the immediate foreground within the vineyard and two slightly taller TSPs that replace the two-pole “hairpin” structure. A comparison of the existing view and simulation indicates that the existing and replacement structures are situated in approximately the same location, and the number and width of the cross-arms are the same. Additionally, the change in appearance of overhead conductor is not noticeable. Although the new structures are approximately 15 feet taller, the existing and replacement structures are similar in terms of line, color, and scale. Comparison of the existing view and visual simulation demonstrates that the visual change would not substantially affect the composition or character of the landscape seen from this scenic roadway. Therefore, the visual effect associated with the modified project would be less than significant. Additionally, one existing pole situated adjacent to the trail will be replaced by a slightly taller TSP; however, because the line, form, and color of the replacement structure would match the existing structure, and because dense vegetation in the park would provide a substantial amount of screening, the potential effects on views from the trail and within the park would be minor and less than significant.

### **3.1.3 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.2.2 of the 2017 Final MND discussed impacts on agriculture and forestry resources that would occur during construction, operation, and maintenance of the approved project (CPUC 2017: Final MND pages 3.1-14 to 3.1-34). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to scenic resources or nighttime lighting; therefore, these subjects are not discussed further.

#### **b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? *Less-than-Significant Impact***

The 2017 Final MND determined that the construction effects of the project would have no impact on scenic resources, including, but not limited to, trees, rock outcroppings, and historic

buildings within a state scenic highway. The 2017 Final MND also determined that the Operation and Maintenance effects would be less than significant (CPUC 2017, Final MND pages 3.1-14 and 3.1-15). That analysis is hereby incorporated by reference.

As described above in Section 3.1.1 and illustrated on Figure 3.1-3, the modified project includes replacing existing poles on both sides of the Highway 101 corridor.

The modifications to the approved project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Figures 3.1-3a and 3.1-3b present the existing view showing the approved project paired with a simulation showing the modified project, as seen from northbound Highway 101. A comparison of the two images demonstrates that the line, form and color of the existing and replacement poles is comparable and there would not be a noticeable change in the appearance of overhead conductors spanning the roadway. Overall, this minor and incremental visual change would not substantially alter views experienced briefly by motorists along the Highway 101 corridor. In light of the minor incremental visual effects described above, the impact would remain less than significant.

**c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings? *Less-than-Significant With Mitigation Impact***

**Temporary Construction-related Impacts**

The 2017 MND found that project construction would temporarily introduce construction equipment to the visual landscape and result in landscape alterations through vegetation removal and erection of new poles, but with incorporation of mitigation measure MM Biology-7, which requires restoration of temporarily disturbed project areas, the viewer response to this impact would be low due to the temporary nature of the activity. The resulting impact on visual quality would be less than significant (CPUC 2017, Final MND pages 3.1-16- 3.18). That analysis is hereby incorporated by reference.

Construction of the modified project would require a limited amount of grading and vegetation removal including within Shiloh Ranch Regional Park, where one existing pole situated adjacent to the trail will be replaced with a new TSP. However, as noted above, PG&E would implement MM Biology-7, which requires restoration of temporarily disturbed areas with native vegetation and specifies methods to achieve successful revegetation. PG&E's Revegetation, Restoration and Monitoring Plan for this project, approved by the CPUC on June 13, 2018, requires PG&E to replace all trees and shrubs on a 1:1 basis. Therefore, temporary impacts on visual quality including vegetation removal and grading during construction would be less than significant with implementation of mitigation, and construction of proposed project modifications would not result in new information of substantial importance related to degradation to the existing visual character or quality of the site and its surroundings.

**Permanent Visual Impacts**

The 2017 MND states the proposed project would involve replacement of existing conductors and reconfiguration of one of the 230 kV transmission lines from a bundled to a vertical configuration, effectively removing three conductors from the alignment. Existing support structures (steel TSPs and dead-end structures) would remain in place except for Pole 6, which

would be replaced with a LDSP (CPUC 2017, Final MND page 3.1-18). That analysis is hereby incorporated by reference.

The modified project includes removing a total of 21 existing structures including 13 existing TSPs, 2 existing TSPs with guy wires, and 3 two-pole “hairpin” structures located in the Southern Segment, and replacing these structures with 21 new TSPs along the existing project alignment. The new poles will be installed within approximately 15-35 feet of the existing pole location and in line with the existing conductor. Replacement structures will be approximately 15 feet taller than the existing structures.

The modifications to the approved project would not result in substantial degradation to the existing visual character or quality of the site and its surroundings. Section 3.1 above includes detailed evaluation of the minor and incremental visual effects associated with the modified project. The visual simulations in Figures 3.1-3a through 3.1-6b show before and after views of the modified project as seen from 4 KOP locations selected in consultation with the CPUC. A comparison of these existing and post-project views demonstrates that the minor visual changes would result in less than significant effects on views from the Highway 101 corridor, Maddux Ranch Regional Park, Mark West Elementary School, and Faught Road near the South Ridge Trail access point to Shiloh Ranch Regional Park. One existing pole situated adjacent to the trail will be replaced by a slightly taller TSP; however, because the existing and replacement structure would appear similar in terms of scale, line, form, and color, and because dense vegetation provides screening within the park, the effects on views from the trail will be minor and less than significant. Therefore, the proposed project modifications would not result in a new impact related to degradation to the existing visual character or quality of the site and its surroundings.

**d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? *Less-than-Significant Impact***

**Glare**

The 2017 Final MND found the power and transmission lines would include two potential sources of glare: the poles and the conductors (CPUC 2017, Final MND pages 3.1-34). That analysis is hereby incorporated by reference.

As noted in Section 3.1 above, the replacement TSPs proposed for the modified project will have a dull galvanized steel surface. The dulled finish will reduce potential reflectivity and glare. Conductors installed as part of the modified project will be comparable to the conductors for the approved project. Thus, glare impacts would be less than significant and the proposed project modifications would not result in a new impact related to glare. The impact would remain less than significant.

### **3.1.4 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to aesthetics. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to aesthetics has been identified, and none of the conditions described in Public Resource Code



sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.2 AGRICULTURE AND FORESTRY RESOURCES**

### **3.2.1 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.2.1 of the 2017 Final MND described the agricultural and forestry resources in the approved project site and vicinity (CPUC 2017: Final MND pages 3.2-1 to 3.2-5). That discussion is hereby incorporated by reference.

### **3.2.2 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.2.2 of the 2017 Final MND discussed impacts on agriculture and forestry resources that would occur during construction, operation, and maintenance of the approved project (CPUC 2017: Final MND pages 3.2-6 to 3.2-10). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to forest resources or timberland zoning or additional conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use beyond those discussed below; therefore, these subjects are not discussed further.

#### **a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? *Less-than-Significant Impact With Mitigation***

As was the case with the existing project, the proposed replacement of Pole 21 and Pole 22 would occur on active farmland and could temporarily interrupt farm activities or potentially damage crops, agricultural equipment, or agricultural infrastructure. Implementation of MM Agriculture-1, which requires PG&E to protect agricultural equipment, avoid crop removal where feasible, and compensate for any unavoidable crop loss, would reduce construction impacts to less than significant. Operational and maintenance impacts would be minimal because poles would be replaced on a one-to-one basis within approximately 15-35 feet of their existing locations. Pole replacement will take agricultural activities into consideration and one pole will be placed in a better location for farming operations than the existing poles being replaced. Impacts to farmland would remain less than significant with mitigation.

#### **b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? *Less-than-Significant Impact***

As is the case for many pole replacements in the existing project, the proposed replacement of Pole 21 and Pole 22 would occur in a parcel zoned for agricultural use and under a Williamson Act contract. As discussed in the 2017 Final MND with regard to the poles previously planned to be replaced, permanent impacts for the two additional poles replacements would be minimal because the poles would be replaced on a one-to-one basis. The impact would remain less than significant.

**d) Result in the loss of forest land or conversion of forest land to non-forest use? *Less-than-Significant Impact With Mitigation***

As is the case for the existing project, construction of the proposed pole replacements would require trimming or removal of trees within areas mapped as native riparian woodland and mixed oak woodland. Reconfiguring pull site PS-6 to provide space for crane pads would require removal of trees within a mapped native riparian woodland. However, the total number of trees removed would remain approximately the same. As discussed in the 2017 Final MND, PG&E would implement mitigation measure MM Biology-7, which requires PG&E to restore or replace riparian woodland through implementation of a Revegetation, Restoration, and Monitoring Plan. PG&E's Revegetation, Restoration and Monitoring Plan for this project, approved by the CPUC on June 13, 2018, requires PG&E to replace all trees and shrubs on a 1:1 basis. The impact would remain less than significant with mitigation.

**3.2.3 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to agriculture or forestry resources. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

**3.3 AIR QUALITY**

**3.3.1 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.3.1 of the 2017 Final MND described air quality conditions in and around the project site (CPUC 2017: Final MND pages 3.3-1 to 3.3-9). That discussion is hereby incorporated by reference.

**3.3.2 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.3.2 of the 2017 Final MND analyzed impacts on air quality that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.3-10 to 3.3-21). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to odor; therefore, this subject is not discussed further.

**a) Conflict with or obstruct implementation of the applicable air quality plan? *Less-than-Significant Impact***

The 2017 Final MND concluded that the project would not conflict with or obstruct the 2017 Clean Air Plan (CAP) unless (1) proposed control measures are inconsistent with the control measures identified in the CAP, and/or (2) construction of the proposed project generated criteria pollutant, toxic air contaminants, or greenhouse gas emissions (refer to Section 3.7: Greenhouse Gas Emissions for analysis) that exceed numerical thresholds defined by the Bay Area Air

Quality Management District (BAAQMD) to attain the goals and objectives of the 2017 CAP. As shown in Table 3.3-1 below, thresholds will not be exceeded for construction of the revised project. The proposed control measures for this project have not changed and therefore will remain consistent with the CAP. APM-1 and APM-2 will remain in place and the project will continue to comply with BAAQMD Regulation 8, Rule 3 as it is applicable, and therefore will not conflict with provisions or obstruct implementation of the San Francisco Bay Area 2001 Ozone Attainment Plan for the 1-Hour National Ozone Standard (Ozone Attainment Plan). The proposed modifications to the project would not alter the significance conclusions presented in the 2017 Final MND.

**b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? *Less-than-Significant Impact***

The 2017 Final MND concluded that impacts of the previously approved project would have a less-than-significant impact from violation of an air quality standard or contribution to an existing air quality violation. As demonstrated in Tables 3.3-1 and 3.3-2, construction emissions incorporating the proposed modifications to the project would remain below air quality standards; therefore, the proposed pole replacements would not alter the significance conclusions presented in the 2017 Final MND.

**Table 3.3-1 Construction Emission Estimates for Work within  
San Francisco Bay Air Basin**

Criteria Air Pollutant	BAAQMD Significance Thresholds	Average Daily Construction Emission Estimates (pounds/day)
ROG	54	12.9
NOx	54	52.6
PM10 exhaust	82	1.5
PM2.5 exhaust	54	1.5
CO	None	60.8
PM10/PM2.5 fugitive dust	BMPs	2.7

**Table 3.3-2 Construction Emission Estimates for Work within North Coast Air Basin**

Criteria Air Pollutant	NSCAPCD Significance Thresholds	Average Daily Construction Emission Estimates (pounds/day)
ROG	None	6.6
NOx	None	27.1

Criteria Air Pollutant	NSCAPCD Significance Thresholds	Average Daily Construction Emission Estimates (pounds/day)
PM10 exhaust	None	0.8
PM2.5 exhaust	None	0.8
CO	None	31.3
PM10/PM2.5 fugitive dust	BMPs	1.4

**c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? *Less-than-Significant Impact***

The North Coast Air Basin is in attainment for all pollutants; the San Francisco Bay Air Basin is designated as a nonattainment area for ozone and PM2.5. Incorporating the proposed pole replacements into the approved project would not cause the project to exceed significance thresholds for ozone precursor pollutants (ROGs and NO<sub>x</sub>). PG&E would implement the same measures to reduce fugitive dust emissions; APM AIR-1 and APM AIR-2 would reduce construction production of particulate matter (both PM2.5 and PM10) to a less-than-significant level.

As shown in Table 3.3-1 and Table 3.3-2, with incorporation of the proposed pole replacements into the approved project, emissions of ozone precursor pollutants remain below thresholds and APM AIR-1 and APM AIR-2 remain in place. The proposed modifications to the project would not alter the significance conclusions presented in the 2017 Final MND.

**d) Expose sensitive receptors to substantial pollutant concentrations? *Less-than-Significant Impact***

Although construction of the proposed pole replacements in the Southern Segment would occur near numerous residences, schools, childcare centers, and eldercare facilities, only temporary, minor ground-disturbing activities would occur in the Southern Segment, and they would move along the line as work activities are completed. Emission-generating activities would not occur continuously throughout the day; thus the duration, intensity of activities, and equipment types would not place sensitive receptors at risk.

Because proposed modifications would not significantly increase the number of trips per day generated by construction of the Southern Segment, the impact on sensitive receptors from CO concentrations would remain less than significant. Construction of certain parts of the project will still occur adjacent to or near sensitive receptors. However, due to the linear nature of the project, replacement of the additional TSPs will not result in a significant increase in the duration of exposure to any single receptor as the additional activities will be spread out.

The proposed modifications to the project would not alter the significance conclusions presented in the 2017 Final MND.

### 3.3.3 CONCLUSIONS

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to air quality. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to air quality has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## 3.4 BIOLOGICAL RESOURCES

### 3.4.1 DEFINITIONS

This discussion adopts the definitions include Section 3.4.1 of the 2017 Final MND (CPUC 2017: Final MND pages 3.4-1 to 3.4-2).

### 3.4.2 ENVIRONMENTAL SETTING

The “Environmental Setting” discussion in Section 3.4.3 of the 2017 Final MND described biological resources in the project area and identified special-status species with potential to be impacted by the approved project (CPUC 2017: Final MND pages 3.4-4 to 3.4-18). That discussion is hereby incorporated by reference.

### 3.4.3 IMPACT ANALYSIS

The “Impact Analysis” discussion in Section 3.4.4 of the 2017 Final MND analyzed impacts on biological resources that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.4-18 to 3.4-45). That discussion is hereby incorporated by reference.

**a) Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS? *Less-than-Significant Impact With Mitigation***

Construction of the proposed pole replacements has the potential to cause the same direct and indirect impacts to the same special-status as the existing project as described in the 2017 Final MND. Implementation of applicant proposed measures and mitigation measures APM BIO-1a, APM BIO-1g, APM BIO-1h, APM BIO-1j, APM BIO-1k, APM BIO-7, APM BIO-8, APM BIO-9, MM Biology-1, MM Biology-2, MM Biology-3, MM Biology-4, MM Biology-5, and MM Biology-6, MM Hydrology-4 would reduce direct impacts to less than significant. Implementation of APM BIO-1f, APM BIO-8, MM Biology-5, MM Biology-6, MM Biology-7, and MM Biology-8; and APM HM-3, APM HM-4, MM Hazards-1, and MM Hazards-2 would reduce indirect impacts to less than significant. Impacts would remain less than significant with mitigation.

**b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service? *Less-than-Significant Impact With Mitigation***

As was the case with the existing project, several trees would be removed in order to establish pull site PS-6. Additional trees may be removed through realignment of the work area to support crane pads. PG&E would comply with the project's Revegetation, Restoration, and Monitoring Plan, approved by the CPUC on June 13, 2018, as described in mitigation measure MM Biology-7 in the 2017 Final MND. That plan requires PG&E to replace all trees and shrubs on a 1:1 basis. PG&E would also implement MM Biology-9, which requires PG&E to avoid sensitive natural plant communities to the greatest extent feasible, and mitigate for unavoidable impacts on sensitive vegetation communities at a 1:1 ratio, and MM Biology-1, which describes the biologist qualifications. As is the case for the existing project, the temporary impact on riparian woodland would remain less than significant with mitigation.

**c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? *Less-than-Significant Impact With Mitigation***

Under the current work plan, the proposed realignment of the work area at PS-6 to support crane pads can be accomplished without impacting the seasonal watercourse SEW-1 that is potentially federally protected as defined by Section 404 of the Clean Water Act. If it were to become necessary to install a temporary culvert or temporary fill within this seasonal watercourse, PG&E would implement mitigation measure MM Hydrology-4, which requires PG&E to specify methods to minimize impacts to seasonal watercourse SEW-1, and mitigation measure MM Biology-11, which requires additional protection procedures and compensatory mitigation at a 2:1 ratio for every acre of impact to jurisdictional waters. As with the existing project, PG&E would implement MM Biology-8 (noxious weeds) and MM Hazards-1 (hazardous materials procedures) to address indirect impacts to jurisdictional waters. Impacts from construction would remain less than significant with mitigation.

**d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? *Less-than-Significant Impact With Mitigation***

As is the case with the existing project, construction of the proposed pole replacements would occur in proximity to suitable aquatic habitats that can serve as dispersal corridors for amphibians and reptiles. A new work area would be established at Pole 22, the work area at Pole 21 would be reconfigured, and a temporary bridge would be installed over seasonal watercourse SEW-9A, which is known to support western pond turtle. PG&E would implement APM BIO-9, which requires a qualified biologist to relocate western pond turtle out of the way of construction, and mitigation measure MM Biology-3 to reduce impacts on amphibians from exclusion fencing.

As is the case for the existing project, construction of the proposed pole replacements could impede or discourage migratory birds nesting near construction sites. PG&E would implement



mitigation measure MM Biology-5, which specifies seasonal work avoidance buffers for active nests.

As is the case with the existing project, if it were necessary to install a temporary culvert for the realignment of the work area at PS-6, PG&E would implement mitigation measure MM Hydrology-5, which requires PG&E to ensure that the culvert design meets Sonoma County standards for flood control, and does not decrease the capacity for water flow or impede the movement of aquatic wildlife.

Impacts would remain less than significant with mitigation.

**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? *No Impact***

As is the case for the existing project, construction of the proposed pole replacements will involve vegetation trimming and clearing within oak woodland/forest. However, it is anticipated that the total area impacted and number of oak trees removed would remain within the amount and number approximated in the 2017 Final MND. PG&E would implement APM BIO-10, which ensures compliance with the Sonoma County Zoning Ordinance Article 67. Construction of the proposed pole replacements would not conflict with the local county ordinance. The proposed modifications to the project would not alter the significance conclusions presented in the 2017 Final MND.

**f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? *Less-than-Significant Impact With Mitigation***

Seven proposed replacements poles are located within the Santa Rosa Plains Conservation Strategy (SRPCS) plan in an area identified as having potential for California tiger salamander (CTS). As is the case for existing project work areas in the SRPCS, PG&E would implement APM BIO-7 to reduce potential project impacts to CTS; APM BIO-1a to provide biological training for workers; APM BIO-1g, APM BIO-1h, and MM Biology-1 to limit vegetation disturbance and mark work areas; APM BIO-1f to manage trash; APM BIO-1j to restrict pets; APM AIR-1 to restrict vehicle speed; MM Hazards-1 to manage hazardous materials; and MM Biology-7 to restore and revegetate areas temporarily disturbed by construction. Potential conflicts with the SRPCS would remain less than significant with mitigation.

### **3.4.4 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to biological resources. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to biological resources has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## 3.5 CULTURAL RESOURCE

### 3.5.1 DEFINITIONS

This discussion adopts the definitions included in Section 3.5.1 of the 2017 Final MND (CPUC 2017: Final MND pages 3.5-1 to 3.5-3).

### 3.5.2 ENVIRONMENTAL SETTING

The “Environmental Setting” discussion in Section 3.5.2 of the 2017 Final MND described cultural and tribal resources in the project area and cultural and tribal resources with potential to be impacted by the approved project. This section also includes information about the regional setting, records search results, pedestrian survey summary, and Native American coordination (CPUC 2017: Final MND pages 3.5-4 to 3.5-12). That discussion is hereby incorporated by reference.

### 3.5.3 IMPACT DISCUSSION

The “Impact Analysis” discussion in Section 3.5.3 of the 2017 Final MND analyzed impacts on cultural resources that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.5-12 to 3.5-17). That discussion is hereby incorporated by reference.

The proposed modifications are located within the existing project area and are included in the project’s cultural resource surveys. The proposed modifications would not include changes to known historical, archaeological, or tribal resources, or to recorded Native American or other human remains; therefore, these subjects are not discussed further.

#### **a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? *Less-than-Significant Impact With Mitigation***

As is the case with the existing project, excavation of the proposed pole replacement holes and grading of reconfigured pull site PS-6 could impact previously undiscovered CRHR-eligible resources. PG&E would implement mitigation measures MM Cultural-1, which requires monitoring of excavations greater than 3 feet in diameter and grading greater than 6 inches in depth in previously undisturbed areas; MM Cultural-2, which specifies requirements for cultural resources training; and MM Cultural-4, which specifies data recovery methods for previously undiscovered CRHR-eligible resources. As with the approved project, impacts would remain less than significant with mitigation.

#### **b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? *Less-than-Significant Impact With Mitigation***

As is the case with the existing project, excavation of the proposed pole replacement holes and grading of reconfigured pull site PS-6 has the potential to impact previously undiscovered archaeological resources. PG&E would implement mitigation measures MM Cultural-1, which requires monitoring of excavations greater than 3 feet in diameter and grading greater than 6 inches in depth in previously undisturbed areas; MM Cultural-2, which specifies requirements for cultural resources training; and MM Cultural-4, which specifies data recovery methods for



previously undiscovered archaeological resources. As with the approved project, impacts would remain less than significant with mitigation.

**c) Disturb any human remains, including those interred outside of formal cemeteries *Less-than-Significant Impact***

As is the case with the existing project, it is possible that unrecorded human remains will be discovered and inadvertently disturbed during construction. PG&E would adhere to Health and Safety Code § 7050.5 and PRC §§ 5097.94, 5097.98, and 5097.99, which require procedures to halt work if human remains are discovered, notify the County Coroner to examine the remains, and to determine the appropriate treatment for potential prehistoric Native American remains through consultation with the Most Likely Descendent identified by the NAHC and the property owner. Impacts to any undiscovered or unrecorded human remains will remain less than significant.

**d) Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC §5020.1(k)?, or
- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence and with consideration of the significance of the resource to a California Native American tribe, to be significant pursuant to criteria set forth in subdivision (c) of PRC §5024.1? *Less-than-Significant Impact with Mitigation*

As with the existing project, there is a high likelihood of encountering previously undiscovered tribal cultural resources due to ground disturbances occurring during construction. PG&E would implement mitigation measures MM Cultural-1, which requires monitoring of excavations greater than 3 feet in diameter and grading greater than 6 inches in depth in previously undisturbed areas; MM Cultural-2, which specifies requirements for cultural resources training; and MM Cultural-4, which specifies data recovery methods for previously undiscovered tribal resources. As with the approved project, impacts would remain less than significant with mitigation.

### **3.5.4 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to cultural or tribal resources. No new mitigation measures are required to ensure that impacts will remain less than significant. No new information of substantial importance related to cultural or tribal resources has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## 3.6 GEOLOGY, SOILS, AND MINERAL RESOURCES

### 3.6.1 ENVIRONMENTAL SETTING

The “Environmental Setting” discussion in Section 3.6.1 of the 2017 Final MND described geology, soils, and mineral resources in and around the project site (CPUC 2017: Final MND pages 3.6-1 to 3.6-12). That discussion is hereby incorporated by reference.

### 3.6.2 IMPACT ANALYSIS

The “Impact Analysis” discussion in Section 3.6.2 of the 2017 Final MND analyzed impacts on geology, soils, and mineral resources that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.6-12 to 3.6-18). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes to the project related to septic tanks or mineral resources; therefore, these subjects are not discussed further.

**a) Would the proposed project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground-shaking; seismic-related ground failure including liquefaction; or landslides? *Less-than-Significant Impact***

As is true for the existing project, proposed replacement poles and proposed work areas are located within areas subject to potential seismic hazards. Pull site PS-6 and Pole 23 are located within the Rodgers Creek Fault Zone (CPUC 2017: Final MND Figure 3.6-4) and potentially subject to strong ground shaking in the event of an earthquake on the Rodgers Creek Fault or other local faults. Two poles (Pole 13a and Pole 13b), north of Mark West Creek, are located within an area highly prone to liquefaction, and the rest of the proposed replacement poles are located within an area mapped as having medium risk for liquefaction (CPUC 2017: Final MND Figure 3.6-5).

As is the case with the approved project, seismic events in the region could cause ground failure at proposed replacement pole locations, resulting in downed poles and power lines that could pose a risk to the public from injury or death. The proposed replacement poles would be designed in accordance with CPUC GO 95 and the Institute of Electrical and Electronics Engineers, Inc. Standard 693 to withstand damage from ground rupture, strong seismic shaking, and seismic-related ground failure, including liquefaction.

With implementation of existing APM GS-3 and mitigation measure MM Geology-1, PG&E will conduct site specific geotechnical investigations of pole replacement locations and incorporate the findings into the final engineering design. PG&E will adjust final pole locations or refine the final foundation depth and design to address the risk of liquefaction. As with the approved project, impacts would remain less than significant with mitigation.

**b) Would the proposed project result in substantial soil erosion or the loss of topsoil? *Less-than-Significant Impact***

As is the case with the approved project, ground disturbance for the proposed pole replacements would occur at construction work areas and unpaved access routes. The proposed pole

replacements would not result in ground disturbance above the level described in the 2017 Final MND. However, installing the new poles would generate an additional approximately 1,000 cubic yards of cut-and-fill. Ground disturbance and excavation would occur at mostly flat locations and in soils that have slight to moderate wind and/or water erosion potential (CPUC 2017: Final MND Table 3.6-1). As is the case with the approved project, potentially significant erosion of soil and topsoil loss due to construction would remain less than significant with implementation of APM GS-1, which requires replacement of soft or loose and erodible soils, installation of material over access roads, and other measures to reduce soil erosion.

**c) Would the proposed project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? *Less-than-Significant Impact With Mitigation***

As is the case with the approved project, the proposed project modifications would consist of existing poles replaced in approximately their current locations, and impacts on property or life that could result from exposure to unstable soils would not be greater than existing conditions. The proposed modifications to the project would not alter the significance conclusions presented in the 2017 Final MND.

**d) Would the proposed project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? *No Impact***

The proposed replacement poles would mostly be situated in soils with low to moderate shrink-swell potential; one pole (Pole 17) would be situated in Clear Lake clay soil, which has a high shrink-swell potential (CPUC 2017: Final MND Figure 3.6-2 and Table 3.6-1). As was the case with the approved project, some pole replacements may occur in areas underlain by moderate or high shrink-swell potential but the risk to life and property would not increase. No impacts on life or property from expansive soil would occur.

### **3.6.3 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to geology, soils, and mineral resources. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to geology, soils, and mineral resources has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.7 GREENHOUSE GAS EMISSIONS**

### **3.7.1 ENVIRONMENTAL SETTING**

The “Definitions” in Section 3.7.1 and the “Statewide Greenhouse Gas Emission” discussion in Section 3.7.2 of the 2017 Final MND described greenhouse gas emissions (GHG) relevant to the project (CPUC 2017: Final MND pages 3.7-1 to 3.7-2). That discussion is hereby incorporated by reference.

### 3.7.2 IMPACT ANALYSIS

The “Impact Analysis” discussion in Section 3.7.3 of the 2017 Final MND analyzed project impacts from greenhouse gas emissions that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.7-3 to 3.7-5). That discussion is hereby incorporated by reference.

**a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?? *Less-than-Significant Impact***

As is the case with the existing project, the project with modifications incorporated would have a less-than-significant impact from amortized construction emissions; operation and maintenance of the reconducted power line would have no impact on GHG emissions, and the impact from operational GHG emissions from minor substation work would remain less than significant with implementation of APM GHG-2, which established a maximum leak rate for new SF6 circuit breakers. Table 3.7-1 provides the greenhouse gas emissions for the project with incorporation of the proposed modifications. The impact would remain less than significant.

**Table 3.7-1 Greenhouse Gas Emissions Generated by the Proposed Project**

Project Phase	CO <sub>2</sub> Equivalent Emissions Per Year (MT CO <sub>2</sub> e)
Construction Equipment and Vehicle Emissions	1,534
Construction Helicopter Operation Emissions	1,379
<b>Total Construction Emissions</b>	<b>2,913</b>
<i>Amortized Construction Emissions (30 years)</i>	<i>97</i>
<i>Annual Circuit Breaker SF6 Leakage</i>	<i>18</i>
<b>Total Annual Project Emissions <sup>a</sup></b>	<b>115</b>
Bay Area Air Quality Measurement District Annual Significance Threshold	1,100
Exceeds Threshold?	No
Note: <sup>a</sup> Derived from the sum of the amortized construction emissions and the annual circuit breaker SF6 leakage emissions.	

**b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? *Less-than-Significant Impact***

As is the case with the existing project, the revised project would not conflict with the California Air Review Board (CARB) Scoping Plan, CARB Mobile Source Strategy, Bay Area Air Quality Measurement District 2017 Clean Air Plan (2017 CAP), or Sonoma County General Plan. With

incorporation of the proposed modifications, the project would still conform with relevant programs and recommended actions detailed in the Scoping Plan and Mobile Source Strategy and would not conflict with regulations adopted to achieve the goals of the Scoping Plan. The proposed modifications will not conflict with the 2017 CAP because GHG emissions would be below the threshold for GHGs as shown in Table 3.7-2. The impact would remain less than significant.

### 3.7.3 CONCLUSIONS

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to GHG emissions. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to GHG emissions has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## 3.8 HAZARDS AND HAZARDOUS MATERIALS

### 3.8.1 DEFINITIONS

This analysis adopts the definitions of hazardous materials and physical hazards in Section 3.8.1 of the 2017 Final MND (CPUC 2017: Final MND page 3.8-1).

### 3.8.2 ENVIRONMENTAL SETTING

The “Environmental Setting” discussion in Section 3.8.2 of the 2017 Final MND described existing hazards in and around the project site (CPUC 2017: Final MND pages 3.8-1 to 3.8-3). That discussion is hereby incorporated by reference.

### 3.8.3 IMPACT ANALYSIS

The “Impact Analysis” discussion in Section 3.8.3 of the 2017 Final MND analyzed impacts from hazards and hazardous materials that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.8-4 to 3.8-12). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to hazardous material sites compiled pursuant to Government Code Section 65962.5, private airstrips, or wildfire hazards; therefore, these subjects are not discussed further.

#### **a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? *Less-than-Significant Impact With Mitigation***

As is the case for the existing project, construction of the proposed pole replacements has the potential to expose the public and the environment to hazards through routine transport, use, or disposal of hazardous materials. The 2017 Final MND assumes the following amounts and types of solid waste: “The project would generate approximately 1,000 cubic yards of solid waste consisting of approximately 700 cubic yards of chemically treated wood poles, 160 cubic yards of insulators, 40 cubic yards of LDSPs (typically hollow), and 100 cubic yards of miscellaneous



waste.” The revised project would generate approximately 1,100 cubic yards of additional solid waste consisting of concrete rubble from removal of existing tubular steel pole foundations, insulators, hollow tubular steel poles, and miscellaneous waste. One of the new poles being replaced, Pole 8 located directly east of Highway 101, is coated with a lead-based paint. To minimize lead dust during pole removal, PG&E will incorporate standard best management practices, such as matting or wetting the area and using a plasma cutter to cut the pole into sections for removal. The plasma cutter vaporizes the metal as it cuts; therefore, it will not release lead dust into the air during the process.

As described in Chapter 2, Section 2.6.10 of the 2017 Final MND, PG&E would collect and recycle or dispose of all solid waste generated from the removal of existing poles, insulators, conductor, substation equipment, and other miscellaneous construction debris as required by applicable laws. For disposal of all replacement poles, PG&E would implement existing mitigation measure MM Hazards-1, which requires PG&E to develop and implement specific hazardous material procedures as an element of the Stormwater Pollution and Prevention Plan (SWPPP; MM Hydrology-1) to ensure that hazardous materials are properly handled, stored, and transported and that any inadvertent leaks or spills are adequately cleaned and reported. The SWPPP must contain procedures for the proper handling and disposal of contaminated materials, which would include steel coated with lead-based paint. With these measures in place, the impact on the public and environment from the routine transport, use, or disposal of hazardous materials would remain less than significant with mitigation.

**b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment? *Less-than-Significant Impact With Mitigation***

As is true for some of the excavations for the existing project, excavations for new replacement pole foundations would occur in an urbanized area where subsurface gas pipelines are located. Poles 8 through 11 are adjacent to a gas distribution pipeline owned and operated by PG&E that provides natural gas to the Larkfield-Wikiup neighborhood. As described in the 2017 Final MND, PG&E would notify other utilities along the proposed alignment through the Underground Service Alert prior to beginning the excavation of pole holes. The impact on the public from damage to or rupture of buried utilities would remain less than significant. The proposed modifications to the project would not alter the significance conclusions presented in the 2017 Final MND.

To further minimize less-than-significant impacts, PG&E plans to use a back truck for excavation of soils in areas located near gas or other utility lines. The back truck liquefies and vacuums dirt to safely expose underground facilities without the risk of damaging or rupturing them.

**c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? *Less-than-Significant Impact With Mitigation***

Pole 8, which is painted with lead-based paint, is located directly east of Highway 101, approximately 500 feet south of San Miguel Elementary School. As discussed in the 2017 Final MND, existing mitigation measure MM Hazards-1 requires PG&E to develop and implement specific hazardous material procedures as an element of the SWPPP (MM Hydrology-1) to

ensure that hazardous materials are properly handled, stored, and transported and that any inadvertent leaks or spills are adequately cleaned and reported. The SWPPP must contain procedures for the proper handling and disposal of contaminated materials, which would include lead-based paint. Implementation of this measure will ensure that any impact on schools would remain less than significant with mitigation.

**e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? *Less-than-Significant Impact***

As is true of the existing project, the majority of the proposed replacement poles would be slightly taller than the existing poles. The increase in replacement pole heights would range from approximately 0-15 feet. Due to the poles' proximity to the Charles M. Schultz Airport, the replacement poles exceed the Notice Criteria specified in Federal Aviation Administration (FAA) Regulations and Title 14 CFR 77.9. PG&E filed Notices of Proposed Construction or Alteration for all proposed replacement poles with the FAA on May 11, 2018, and received confirmation from the FAA that the new poles would not result in air navigation hazards. The impact from operation of the proposed modifications on local residents and workers would remain less than significant.

**g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? *Less-than-Significant Impact With Mitigation***

Potential impacts to emergency response with implementation of proposed modifications are addressed in Section 3.13.3(e). PG&E would implement mitigation measure MM Traffic-1, which limits lane closures to the minimum necessary and avoids traffic impacts, and MM Traffic-4, which requires notification to local emergency services prior to road closures. Impacts would remain less than significant with mitigation.

### **3.8.4 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts due to hazards and hazardous materials. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to hazards and hazardous materials has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.9 HYDROLOGY AND WATER QUALITY**

### **3.9.1 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.9.1 of the 2017 Final MND described existing hazards in and around the project site (CPUC 2017: Final MND pages 3.9-1 to 3.9-7). That discussion is hereby incorporated by reference.

### **3.9.2 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.6.2 of the 2017 Final MND analyzed impacts on hydrology and water quality that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.9-7 to 3.9-17). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to the substantial alteration of existing drainage patterns, flood hazards, levees or dams, or seiche, tsunamis, or mudflow; therefore, these subjects are not discussed further.

#### **a) Violate any water quality standards or waste discharge requirements? *Less-than-Significant Impact With Mitigation***

##### **Water Quality Standards**

The additional construction activities associated with the new pole replacements will require excavation of pole holes and vegetation clearing, grading, and filling for work areas and project access. As is the case for the existing project, these activities would not substantially increase the risk of erosion and sedimentation to nearby waters, some of which are listed as impaired for siltation/sedimentation, or exacerbate existing water quality violations. As described in the 2017 Final MND, PG&E would implement mitigation measure MM Hydrology-1, which defines performance standards for the SWPPP and requires PG&E to obtain CPUC approval for the SWPPP, and MM Hydrology-2, which requires monitoring and maintenance of best management practices until all ground-disturbing activities have ended and disturbed areas are sufficiently stabilized. As is the case for the existing project, with implementation of MM Hydrology-1 and MM Hydrology-2, the impact on water quality would remain less than significant with mitigation.

##### **Waste Discharge Requirements**

As is the case with the existing project, groundwater may be removed and discharged from proposed replacement pole holes if perched or shallow groundwater is encountered during excavation. Although not anticipated, it is possible that preparation of crane pads in Shiloh Ranch Regional Park could require installing a culvert or temporary materials in or over waters. As is the case for the existing project, the proposed project modifications would not violate waste discharge requirements through groundwater discharge, or by placing fill materials into waters of the state without obtaining required permits. PG&E will implement MM Hydrology-3, which requires groundwater removed from excavations to be used or disposed of properly to avoid discharges into wetlands, waters, or storm drains, and MM Hydrology-4, which requires PG&E to either avoid discharge of fill materials to waters of the state or obtain permits from the North Coast Regional Water Quality Control Board to avoid violation of waste discharge requirements. As a result, impacts would remain less than significant with mitigation.



**b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)? *Less-than-Significant Impact***

As is the case for the existing project, pole holes will be open for a short period of time until foundations are set, and the short-term and localized dewatering of shallow groundwater would not cause the production rate of groundwater wells to fall below a level that would support existing or planned land uses. The impact would remain less than significant.

### **3.9.3 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to hydrology and water quality. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to hydrology and water quality has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.10 LAND USE**

### **3.10.1 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.10.1 of the 2017 Final MND described land use in and around the project site (CPUC 2017: Final MND pages 3.10-1 to 3.10-8). That discussion is hereby incorporated by reference.

### **3.10.2 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.10.2 of the 2017 Final MND analyzed impacts on land use that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.10-9 to 3.10-11). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to division of an established community or conflict with any applicable land use plan or policy; therefore, these subjects are not discussed further.

**c) Conflict with any applicable habitat conservation plan or natural community conservation plan? *Less-than-Significant Impact With Mitigation***

As was the case with several work areas in the existing project, seven proposed replacement poles are situated within the boundary of the Santa Rosa Plains Conservation Strategy (SRPCS) in areas classified as having “potential for presence of California Tiger Salamander and listed plants.” As discussed in the 2017 Final MND, PG&E would implement a worker environmental awareness program (APM BIO-1a); manage waste (APM BIO-1f); restrict parking (APM BIO-1g); adhere to access route and work area limitations (APM BIO-1h); prohibit pets and firearms (APM BIO-1j); inspect for wildlife and cover excavations (APM BIO-1k); conduct pre-

construction surveys and use CTS exclusion fencing in critical habitat (APM BIO-7); conduct biological monitoring (MM Biology-1); limit vehicle speeds (APM AIR-1; refer to Section 3.3: Air Quality); and ensure proper handling, storage, and disposal of hazardous materials (MM Hazards-1) to reduce impacts on special-status species. Temporarily disturbed habitats would be restored following construction per MM Biology-7. Potential conflicts within the SRPCS as a result of the proposed pole replacements would remain less than significant with mitigation.

### **3.10.3 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to land use. No new mitigation measures are required to ensure that impacts will remain less than significant. No new information of substantial importance related to land use has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.11 NOISE**

### **3.11.1 ENVIRONMENTAL SETTING**

Definitions in Section 3.11.1 of the 2017 Final MND are adopted. The “Environmental Setting” discussion in Section 3.11.3 of the 2017 Final MND described noise conditions in and around the project site (CPUC 2017: Final MND pages 3.11-6 to 3.11-8). That discussion is hereby incorporated by reference.

### **3.11.2 IMPACT DISCUSSION**

The “Impact Analysis” discussion in Section 3.11.4 of the 2017 Final MND analyzed impacts from noise that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.11-8 to 3.11-19). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to noise ordinances or standards, or noise generated within an airport land use plan or within the vicinity of a private airstrip; use new machinery causing additional vibration; or cause an increase in ambient noise levels; therefore, these subjects are not discussed further.

#### **d) Would the proposed project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? *Less-than-Significant Impact With Mitigation***

As was the case for the existing project, construction of the proposed pole replacements would result in temporary noise increases from use of heavy ground-based equipment and helicopters. Estimates for cumulative noise levels during construction activities at a reference distance of 50 feet were provided in Table 3.11-5 of the 2017 Final MND (CPUC 2017: page 3.11-14). A representative list of the types and quantities of equipment used to estimate cumulative noise levels was provided in Appendix G of the Final MND.

The proposed site preparation and foundation removal would be the loudest ground-based construction activity due to the use of a jackhammer. Cumulative noise levels at 50 feet would

be the same as those modeled for light duty steel pole (LDSP) installation in the existing project, with an equivalent 1-hour sound level ( $L_{eq}$ ) of 85 dBA (A-weighted sound level). As is the case for the existing project, construction activities would take place during daytime hours between 7:00 am and 7:00 pm Monday through Sunday, and construction noise could cause the same interruptions or annoyances at sensitive receptors as the existing project. PG&E would implement mitigation measure MM Noise-1, which requires notification of all receptors within 500 feet of construction activities at least 7 days prior to construction activities and to implement feasible noise control measures. MM Noise-1 also requires PG&E to avoid loud work during more sensitive morning and evening periods and to designate a Noise Coordinator responsible for responding to residential noise complaints. Impacts of construction noise from ground-based equipment usage would remain less than significant with mitigation.

Noise from helicopter use in the Southern Segment would be modified from the existing project. Helicopters would not be used to access Poles 8 – 11; instead, a heavy-lift helicopter would be used to access Poles 21 – 23. With this change, the number of residences within 70 to 100 feet of helicopter activities in the Southern Segment would be reduced from approximately 10 residences to approximately 1 residence. As discussed in the 2017 Final MND, noise from heavy-lift helicopters would generate noise up to 108 dBA ( $L_{eq}$ ) at 50 feet. As is the case with the existing project, helicopter noise levels would be louder than ground-based equipment but would be reduced by MM Noise-1 to less-than-significant levels. To ensure receptors near helicopter activities receive adequate notice, PG&E would implement MM Noise-3, which requires PG&E to notify receptors within 500 feet at least 30 days prior to helicopter activities. MM Noise-3 also limits the distance and frequency helicopters would operate near receptors and requires minimum set-back distances between helicopter landing zones and receptors unless otherwise agreed upon in writing by affected receptors. PG&E proposes the following minor change to MM Noise-3 to allow use a heavy-lift helicopter to use LZ 2 to access Poles 21 and 22:

Existing measure: *Helicopter LZs for heavy lift helicopters should not be positioned closer than 4,000 feet from schools.*

Proposed change: *Helicopter LZs shall not be used for heavy-lift helicopters closer than 4,000 feet from schools while schools are in session.*

Using the heavy-lift helicopter for pole installation will reduce construction impacts to an active vineyard and a regional park. Performance standards and timing during construction for mitigation measure MM Noise-3 would remain the same. Noise impacts from helicopter use would remain less than significant with mitigation.

### **3.11.3 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts from noise. No new mitigation measures are required to ensure that impacts will remain less than significant. No new information of substantial importance related to noise has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.12 PALEONTOLOGICAL RESOURCES**

### **3.12.1 DEFINITIONS**

This analysis adopts the definition for paleontological resources as described in Section 3.12.1 of the 2017 Final MND (CPUC 2017: Final MND page 3.12-1).

### **3.12.2 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.12.3 of the 2017 Final MND described the geologic units and associated paleontological sensitivity underlying the project site (CPUC 2017: Final MND pages 3.12-2 to 3.12-6). That discussion is hereby incorporated by reference.

### **3.12.3 IMPACT ANALYSIS**

Although the proposed modifications will result in additional ground disturbance, the Southern Segment is located entirely on younger alluvial fan and fluvial deposits, which have a low paleontological sensitivity because they consist of sediments too young to produce fossils. (CPUC 2017 Final MND page 3.12-7). The impact on paleontological resources in the Southern Segment will remain less than significant.

### **3.12.4 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to paleontological resources. No new mitigation measures are required to ensure that impacts will remain less than significant. No new information of substantial importance related to paleontological resources has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.13 POPULATION AND HOUSING**

### **3.13.1 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.13.1 of the 2017 Final MND described the population and housing in and around the project site (CPUC 2017: Final MND pages 3.13-1). That discussion is hereby incorporated by reference.

### **3.13.2 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.13.2 of the 2017 Final MND analyzed impacts on population and housing that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.13-1 to 3.13-3). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes that would impact population growth, remove or replace existing housing, nor displace substantial numbers of people or necessitate the construction of replacement housing elsewhere. Therefore, these subjects are not discussed further.

### 3.13.3 CONCLUSIONS

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts on population and housing. No new mitigation measures are required to ensure that impacts will remain less than significant. No new information of substantial importance related to population and housing has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## 3.14 RECREATION

### 3.14.1 DEFINITIONS

This analysis adopts the definition for recreational areas described in Section 3.14.1 of the 2017 Final MND (CPUC 2017: Final MND page 3.14-1).

### 3.14.2 ENVIRONMENTAL SETTING

The “Environmental Setting” discussion in Section 3.14.2 of the 2017 Final MND described existing recreation in and around the project site (CPUC 2017: Final MND pages 3.14-1 to 3.14-2). That discussion is hereby incorporated by reference.

### 3.14.3 IMPACT ANALYSIS

The “Impact Analysis” discussion in Section 3.14.3 of the 2017 Final MND analyzed impacts on recreation that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.14-3 to 3.14-6). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to construction of recreational facilities; therefore, this subject is not discussed further.

**a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? *Less-than-Significant Impact With Mitigation***

As was the case with the existing project, intermittent closures of park trails and parking lots would be required during the construction of proposed replacement poles. PG&E would be required to implement the following mitigation measures: MM Recreation-2, which requires trail detours be provided where feasible; MM Traffic-1, installation of guard structures; and MM Traffic-2, positioning of flaggers to maintain trail and parking lot access. The impact to the use of park facilities would remain less than significant with mitigation.

### 3.14.4 CONCLUSIONS

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to recreation. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to recreation has been identified, and none of the conditions described in Public Resource Code



sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

### **3.15 TRAFFIC AND TRANSPORTATION**

#### **3.15.1 DEFINITIONS**

This discussion adopts the definitions from the “Definitions” section in 3.15.1 of the 2017 Final MND (CPUC 2017: Final MND pages 3.15-1 to 3.15-3).

#### **3.15.2 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.15.2 of the 2017 Final MND described traffic and transportation systems in and around the project site (CPUC 2017: Final MND pages 3.15-3 to 3.15-12). That discussion is hereby incorporated by reference.

#### **3.15.3 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.15.3 of the 2017 Final MND analyzed impacts on transportation and traffic that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.15-13 to 3.15-27). That discussion is hereby incorporated by reference.

**a) Would the proposed project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? *Less-than-Significant Impact With Mitigation***

The estimated maximum daily construction vehicle trips for construction activities associated with the proposed pole replacements would remain the same as the approved project, as described in the project’s 2017 Final MND (CPUC 2017: page 3.15-15). As described in the MND, the number of daily trips would be less than significant with mitigation measure MM Traffic-1, which restricts lane closures in the Southern Segment during peak commute periods and during afternoon pickup at adjacent schools.

Temporary road closures would be required for the proposed pole replacements during pole installation and removal. As was the case with the existing project, construction activities may result in changes to traffic circulation and the need to stop traffic while work is being completed on a road segment. PG&E would implement MM Traffic-1 to avoid impacts to circulation during peak commute hours. Impacts would remain less than significant with mitigation.

**b) Would the proposed project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? *Less-than-Significant Impact With Mitigation***

Construction of the proposed pole replacements would occur intermittently over approximately 5 months. As with construction of the existing project, construction of the proposed pole replacements would be temporary and intermittent, but could have a potentially significant

impact on LOS standards defined by Sonoma County should construction traffic increase congestion during peak commute hours. PG&E would implement mitigation MM Traffic-1 to avoid impacts to circulation during peak commute hours, and the impact would remain less than significant with mitigation.

**c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? *Less-than-Significant Impact With Mitigation***

Changes are proposed to helicopter use in the Southern Segment. Poles 8, 9, 12, and 13 would not be accessed by helicopter. Poles 21, 22, and 23 would be access by helicopter. The number of residences within 70 to 100 feet of helicopter activities in the southern segment would be reduced from approximately 10 residences to approximately 1 residence. As with the existing project, PG&E would be required to implement mitigation measure MM Traffic-2, which requires PG&E to implement safety procedures during helicopter activities and coordinating timing of helicopter activities with affected property owners and residents. Temporary safety risks from use of the helicopter would remain less than significant with mitigation.

Potential safety risks from operation of the proposed modifications are addressed in Section 3.8.3(e). Impacts from operation of the proposed pole replacements would remain less than significant.

**d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? *Less-than-Significant Impact With Mitigation***

As is the case with the existing project, the proposed pole replacements would involve overhead construction activities in populated areas, with a concomitant risk of falling objects. PG&E would implement mitigation MM Traffic-2, which requires PG&E to implement safety procedures during overhead construction activities. Impacts would remain less than significant with mitigation.

**e) Would the proposed project result in inadequate emergency access? *Less-than-Significant Impact With Mitigation***

As was the case with the existing project, intermittent temporary lane closures would be required during construction of the replacement poles. Roads adjacent to proposed replacement pole locations would be closed during limited periods of the day during pole removal and installation. Delays from road closures have potential to affect emergency service response times as described in the 2017 Final MND. As with the existing project, PG&E would be required to implement Mitigation Measure Traffic-1, which limits lane closures to the minimum necessary and avoids traffic impacts, and MM Traffic-4, which requires notification to local emergency services prior to road closures. The impacts on emergency response time would remain less than significant with mitigation. In addition, as described in Chapter 2, PG&E proposes to place traffic flaggers at both ends of road stop work and flag emergency vehicles in, out, or through the closed section as needed. The impact would remain less than significant with mitigation.

**f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? *Less-than-Significant Impact With Mitigation***

The proposed pole replacements would have no additional impact to bus routes. As with the existing project, construction of the pole replacements would require temporary closures of roads and sidewalks. PG&E would implement mitigation measure MM Traffic-1, which provides cyclists and pedestrians with safe detour routes around closed roads and sidewalks. The impact would remain less than significant with mitigation.

### **3.15.4 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to traffic and transportation. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to traffic and transportation has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.16 UTILITIES AND PUBLIC SERVICES**

### **3.16.1 ENVIRONMENTAL SETTING**

The “Environmental Setting” discussion in Section 3.16.1 of the 2017 Final MND described utilities and public services in and around the project site (CPUC 2017: Final MND pages 3.16-1 to 3.16-8). That discussion is hereby incorporated by reference.

### **3.16.2 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.16.2 of the 2017 Final MND analyzed impacts on utilities and public services that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.16-9 to 3.16-13). That discussion is hereby incorporated by reference.

The proposed modifications would not include changes related to wastewater treatment requirements or wastewater facilities, new stormwater drainage facilities, water supply entitlements, or solid waste regulations; therefore, these subjects are not discussed further.

#### **f) Would the proposed project be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs? *Less-than-Significant Impact***

The proposed pole replacements would generate approximately 1,100 cubic yards of additional solid waste consisting of concrete rubble from removal of existing tubular steel pole foundations, insulators, hollow tubular steel poles, and miscellaneous waste. As discussed in the 2017 Final MND, metal poles and hardware would be recycled, and permitted landfill capacity far exceeds the volume of non-recyclable waste that would be generated by the project. The impact would remain less than significant.



**h) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities? *Less-than-Significant Impact With Mitigation***

As with the existing project, construction of the proposed pole replacements would not require new or physically altered government facilities. Refer to Section 3.13.3(e) for discussion of construction impacts to emergency response times. Refer to Section 3.12.2(a) for discussion of construction impacts to existing parks. The impacts of the revised project would remain unchanged.

### **3.16.3 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts to utilities and public services. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance related to utilities and public services has been identified, and none of the conditions described in Public Resource Code sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **3.17 MANDATORY FINDINGS OF SIGNIFICANCE**

### **3.17.1 IMPACT ANALYSIS**

The “Impact Analysis” discussion in Section 3.17.1 of the 2017 Final MND analyzed impacts on utilities and public services that would occur during construction, operation, and maintenance of the proposed project (CPUC 2017: Final MND pages 3.17-1 to 3.17-32). That discussion is hereby incorporated by reference.

**Impact MFOS-1: Would the proposed project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? *Less-than-Significant Impact With Mitigation***

Potential impacts to the environment, fish and wildlife habitat, fish and wildlife populations, plant and animal communities, endangered, rare, or threatened species, and examples of the major periods of California history or prehistory would be the same as the existing project. PG&E would implement the same applicant proposed measures and mitigation measures as for the existing project. The impact would remain less than significant with mitigation.

**Impact MFOS-2: Would the proposed project have impacts that are individually limited, but cumulatively considerable? “Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. *Less-than-Significant Impact With Mitigation***

The cumulative project list in the 2017 MND remains current and applicable to the project area. The potential impacts from construction and operation of the proposed project modifications with regard to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, paleontological resources, traffic and transportation, utilities and public services would be similar to or reduced relative to the existing project. PG&E would implement the same applicant proposed measures and mitigation measures as for the existing project, with one minor revision concerning helicopter use. As is the case for the existing project, impacts from construction and operation of the proposed modifications would not have a considerable contribution to a significant cumulative impact. The impact would remain less than significant with mitigation.

**Impact MFOS-3: Would the proposed project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? *Less-than-Significant Impact***

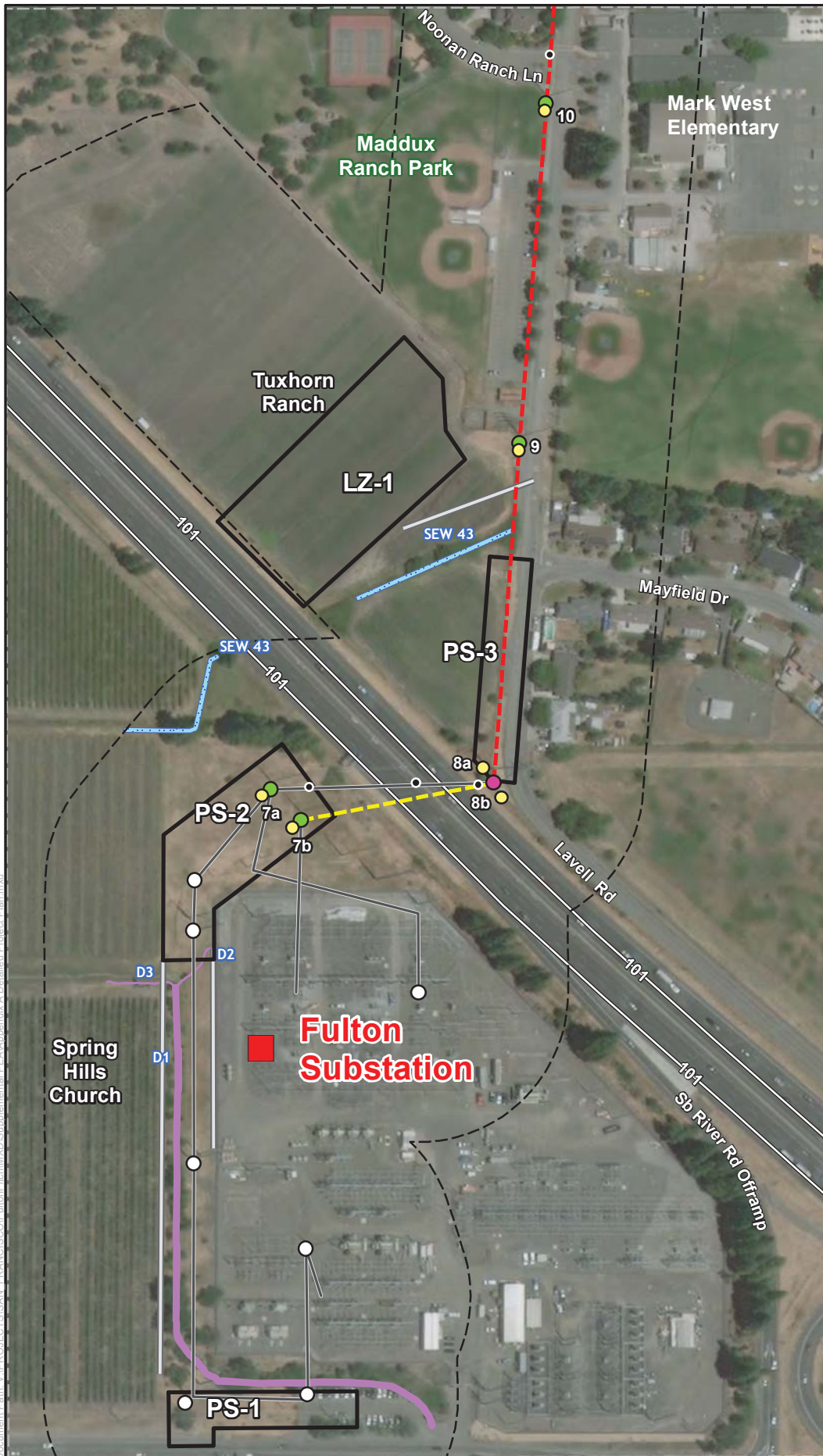
As discussed in the sections above, construction and operation of the proposed project modifications would occur within the existing project study area and have the same impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazardous materials, hydrology and water quality, noise, transportation, or utilities and service systems as the existing project analyzed in the 2017 Final MND. Impacts to air quality, water quality, and hazardous materials by the proposed pole replacement could directly affect human beings, and all CEQA impacts discussed above could indirectly affect human beings. However, implementation of applicant proposed measures and mitigation measures and compliance with applicable federal, state, and local regulations as discussed in the 2017 Final MND and in this Supplemental PEA would reduce these impacts to a less-than-significant level. This Supplemental PEA has identified no other direct or indirect adverse effects on human beings. The impact would remain less than significant.

### **3.17.2 CONCLUSIONS**

The proposed modifications to the Fulton-Fitch Mountain Reconductoring Project would not result in new significant impacts or substantially increase the severity of previously identified impacts on the environment. No new mitigation measures are required to ensure that impacts will remain less than significant. Therefore, no new information of substantial importance has been identified, and none of the conditions described in PRC Sections 15162 and 15163 that call for preparation of a subsequent negative declaration are present.

## **APPENDIX A: DETAILED PROJECT PLAN**

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## Appendix A: Detailed Project Plan

### Fulton-Fitch Mountain Reconductoring Project

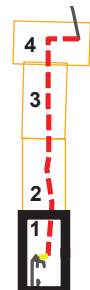
- Fulton Substation
- Approved Project**
- Project Pole
- Transmission Line
- Construction Work Area
  - Guard Structure
- Vehicle Turnaround
- Access Road
- Project Study Area

### Proposed Modifications

- Replace Tubular Steel Pole (TSP)
- Replace 2-Pole with 2 Single-Shaft TSPs
- Proposed New Pole Location
- Reconductor Geysers- Fulton #17 230 kV
- Transfer Two 230 kV Circuits to New TSP
- Remove Pull Site
- Temporary Bridge

### Waters

- Seasonal Watercourse
- Riparian Woodland
- Channel
- Drainage Ditch (per Bio Report)



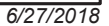
Map 1 of 4  
Map Index

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## Appendix A: Detailed Project Plan

### Fulton-Fitch Mountain Reconductoring Project

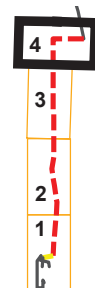
- Fulton Substation
- Approved Project**
  - Project Pole
  - Transmission Line
  - Construction Work Area
    - Guard Structure
  - Vehicle Turnaround
  - Access Road
  - Project Study Area

### Proposed Modifications

- Replace Tubular Steel Pole (TSP)
- Replace 2-Pole with 2 Single-Shaft TSPs
- Proposed New Pole Location
- Reconductor Geysers-Fulton #17 230 kV
- Transfer Two 230 kV Circuits to New TSP
- Remove Pull Site
- Temporary Bridge

### Waters

- Seasonal Watercourse
- Riparian Woodland
- Channel
- Drainage Ditch (per Bio Report)



Map 4 of 4  
Map Index

1:3,000

0 100 200 Feet



## **APPENDIX B: AESTHETICS FIGURES**

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**Figure 3.1-1**  
**Photograph Viewpoint Locations**  
 PG&E Fulton-Fitch Mountain Reconductoring Project





A1. Northbound Highway 101 looking northwest \*



A2. Southbound Highway 101 looking southeast

\*Simulation Viewpoint; see Figure 3.1-3(b) for visual simulation of the project.  
Refer to Figure 3.1-1 for viewpoint locations.





A3. Maddux Ranch Regional Park near children's play area and ball field looking south \*



A4. Mark West Elementary School looking south \*

\*Simulation Viewpoints; see Figures 3.1-4(b) and 3.1.5(b) for visual simulations.  
Refer to Figure 3.1-1 for viewpoint locations.





A5. Noonan Ranch Circle looking north



A6. Old Redwood Highway near Creek Way looking southeast

Refer to Figure 3.1-1 for viewpoint locations.





A7. Airport Boulevard near Faught Road looking east



A8. Faught Road at San Miguel Elementary School and Corbett Circle looking south

Refer to Figure 3.1-1 for viewpoint locations.





A9. Faught Road near Shiloh Ranch Regional Park looking east



A10. Faught Road at Shiloh Ranch Regional Park trail access looking west \*

\*Simulation Viewpoint; see Figure 3.1-6(b) for visual simulation of the project.  
Refer to Figure 3.1-1 for viewpoint locations.

**Figure 3.1-2(e)**  
**Photographs of the Project and Vicinity**  
PG&E Fulton-Fitch Mountain Reconductoring Project





A11. Shiloh Ranch Regional Park South Ridge Trail looking east



A12. Shiloh Ranch Regional Park South Ridge Trail looking west

Refer to Figure 3.1-1 for viewpoint locations.





Existing View from northbound Highway 101 looking northwest (VP A1)

**Figure 3.1-3(a)**  
**Existing View - Highway 101**  
PG&E Fulton - Fitch Mountain Reconductoring Project



Visual Simulation of Proposed Project

Figure 3.1-3(b)  
Visual Simulation - Highway 101  
PG&E Fulton - Fitch Mountain Reconductoring Project





Existing View from Maddux Ranch Regional Park near children's play area and ball field looking south (VP A3)

Figure 3.1-4(a)  
Existing View - Maddux Ranch Regional Park  
PG&E Fulton - Fitch Mountain Reconductoring Project





Visual Simulation of Proposed Project

Figure 3.1-4(b)  
Visual Simulation - Maddux Ranch Regional Park  
PG&E Fulton - Fitch Mountain Reconductoring Project





Existing View from Mark West Elementary School looking south (VP A4)

Figure 3.1-5(a)  
Existing View - Mark West Elementary School  
PG&E Fulton - Fitch Mountain Reconductoring Project



Visual Simulation of Proposed Project

Figure 3.1-5(b)  
Visual Simulation - Mark West Elementary School  
PG&E Fulton - Fitch Mountain Reconductoring Project





Existing View from Fought Road at Shiloh Ranch Regional Park trail access looking west (VP A10)

**Figure 3.1-6(a)**  
**Existing View - Fought Road**  
PG&E Fulton - Fitch Mountain Reconductoring Project





Visual Simulation of Proposed Project

Figure 3.1-6(b)  
Visual Simulation - Faught Road  
PG&E Fulton - Fitch Mountain Reconductoring Project

# **ATTACHMENT D**

## **Attachment D**

### **BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Application of PACIFIC GAS AND  
ELECTRIC COMPANY, a California  
corporation, for a Permit to Construct the  
Fulton-Fitch Mountain Reconductoring Project

A.15-12-005

(U 39 E)

#### **DECLARATION OF MATTHEW WHITE IN SUPPORT OF PACIFIC GAS AND ELECTRIC COMPANY'S PETITION FOR MODIFICATION OF DECISION 17-12-012**

1. I, Matthew White, make this declaration in support of Pacific Gas and Electric Company's (PG&E's) Petition for Modification of Decision 17-12-012. The statements in this declaration are true and correct to the best of my knowledge.

2. I am a senior project manager in PG&E's Transmission Line Project Management – North group, with an office at 6030 West Oaks Blvd in Rocklin, California, 95765. I am a certified Project Management Professional (PMP) with 20 years of project management experience. For the past 5 years I've been working with PG&E, with the last year employed by PG&E as the project manager for PG&E's Fulton-Fitch Mountain Reconductoring Project.

3. I have directed and assisted my project team in preparing the Supplemental Proponent's Environmental Assessment ("Supp. PEA") to support the Petition for Modification of Decision 17-12-012 ("PFM") for this project. I am familiar with the details of both the approved project and the modifications proposed in the PFM.

To the best of my knowledge, the facts and estimates provided in the Supp. PEA accurately reflect the survey and design information currently available.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on June 27, 2018, at Rocklin, California.

/s/  
Matthew White



# ATTACHMENT E

## **Attachment E**

### **PRELIMINARY TRANSMISSION EMF MANAGEMENT PLAN FULTON-FITCH MOUNTAIN RECONDUCTORING PROJECT**

#### **I. General Description of Project**

Project Lead: Project Manager, Electric Transmission Maintenance and Construction

Transmission Line:   Fulton-Hopland 60 kV line  
                              Geysers #12-Fulton 230 kV line  
                              Geysers #17-Fulton 230 kV line

Distribution line Underbuild: None.

Scope of Work:

- The Fulton-Fitch Mountain project was put in place to increase line capacity and reliability. Approximately 9 miles of the Fulton-Hopland 60kV line, and 400 feet of the Geysers #12-Fulton 230kV/Geysers #17-Fulton 230kV lines will be reconducted. We are replacing the wood poles with LDSPs and TSPs on the Fulton-Hopland line as well as replacing TSPs along 1.3 miles of the Geysers #12-Fulton 230kV/Geysers #17-Fulton 230kV lines (supporting the Fulton-Hopland line as underbuild).

#### **Base Cost of Transmission Line Proposed Project:**

The estimated total cost of the Proposed Project (without the EMF mitigation benchmark budget and excluding contingency) is approximately \$21,300,000. Four percent of this estimated total cost is approximately \$852,000.

#### **II. BACKGROUND: CPUC DECISION 93-11-013 AND EMF POLICY**

On January 15, 1991, the CPUC initiated an investigation to consider its role in mitigating the health effects, if any, of electric and magnetic fields (EMF) from utility facilities and power lines. A working group of interested parties, called the California EMF Consensus Group, was created by the CPUC to advise it on this issue. It consisted of 17 stakeholders representing citizens groups, consumer groups, environmental groups, state agencies, unions, and utilities. The Consensus Group's fact-finding process was open to the public, and its report incorporated concerns expressed by the public. The Consensus Group's recommendations were filed with the Commission in March 1992.

In August 2004 the CPUC began a proceeding known as a “rulemaking” (R.04-08-020) to explore whether changes should be made to existing CPUC policies and rules concerning EMF from electric transmission lines and other utility facilities.

Through a series of hearings and conferences, the Commission evaluated the results of its

existing EMF mitigation policies and addressed possible improvements in implementation of these policies. The CPUC also explored whether new policies were warranted in light of recent scientific findings on the possible health effects of EMF exposure.

The CPUC completed the EMF rulemaking in January 2006 and presented these conclusions in Decision D.06-01-042:

- The CPUC affirmed its existing policy of requiring no-cost and low-cost mitigation measures to reduce EMF levels from new utility transmission lines and substation projects.
- The CPUC adopted rules and policies to improve utility design guidelines for reducing EMF, and established a utility workshop to implement these policies and standardize design guidelines.
- Despite numerous studies, including one ordered by the Commission and conducted by the California Department of Health Services, the CPUC stated “we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health consequences.”
- The CPUC said it will “remain vigilant” regarding new scientific studies on EMF, and if these studies indicate negative EMF health impacts, the Commission will reconsider its EMF policies and open a new rulemaking if necessary.

In response to a situation of scientific uncertainty and public concern, the decision specifically requires utilities to consider “no-cost” and “low-cost” measures, where feasible, to reduce exposure from new or upgraded utility facilities. It directs that no-cost mitigation measures be undertaken, and that low-cost options, when they meet certain guidelines for field reduction and cost, be adopted through the project certification process. PG&E was directed to develop, submit and follow EMF guidelines to implement the CPUC decision. According to the guidelines, four percent of total project budgeted cost is the benchmark used to determine “low-cost” in implementing EMF mitigation, and mitigation measures should achieve incremental magnetic field reductions of at least 15% at the edge of right-of-way (ROW).

### **III. PRIORITY AREAS WHERE LOW COST MEASURES ARE TO BE APPLIED**

#### **Surrounding Uses by Priority Category:**

Pursuant to PG&E’s “EMF Design Guidelines for Electrical Facilities”, the mitigation of magnetic fields will be applied to the transmission lines in the following priority:

#### **Land Uses Adjacent to Project Route:**

**Schools or Daycare:** Six structures.

**Residential:** Thirty-three structures.

**Commercial/Industrial:** Ten structures.

**Recreational:** None.

**Undeveloped Land and/or Agricultural, Rural:** Forty-nine structures.

Mark West Elementary School, 4600 Lavell Road, Santa Rosa, CA 95403



San Miguel Elementary School, 5350 Faught Road, Santa Rosa, CA 95403



#### **IV. No Cost and Low Cost Magnetic Field Mitigation**

##### **No Cost Field Reduction**

Optimal phase configurations can be used as a field cancellation technique. The phases from one circuit of a multi-circuit line can be used to reduce the field from another circuit, thereby reducing the total magnetic field strength. For this reason, multi-circuit lines may have lower magnetic fields than single circuit lines.

Double circuit tower lines considered for optimal phasing:

Existing Phasing:

Geysers #12-Fulton 230 kV line -	(T,M,B) =	ABC
Geysers #17-Fulton 230 kV line -	(T,M,B) =	CBA
Fulton-Hopland 60 kV line -	(T,M,B) =	CBA

The double circuit Geysers #12-Fulton and Geysers #17-Fulton 230kV lines are already optimally phased.

##### **Base Case Load Flow:**

**Geysers #12-Fulton 230 kV:** The normal peak loading used for the base case calculation



of the magnetic field is 400 Amps, flowing from Geysers substation to Fulton substation.

**Geysers #17-Fulton 230 kV:**

The normal peak loading used for the base case calculation of the magnetic field is 400 Amps, flowing from Geysers substation to Fulton substation.

**Fulton-Hopland 60 kV:**

The normal peak loading used for the base case calculation of the magnetic field is 60 Amps, flowing from Fulton substation to Hopland substation.

The load currents are assumed to be balanced at 120 electrical degrees separation between the three phases. The loads can vary significantly during the 24 hour day and /or throughout the year.

**Priority Areas where Low Cost Measures Should Be Considered**

Thirty-nine structures in the school and residential land use areas are considered for magnetic field reduction.

**Low Cost Magnetic Field Reduction Options**

Reducing magnetic field strength by increasing the distance from the source can be accomplished either by increasing the height or depth of the conductor from ground level. Furthermore, locating the power lines as far away from the edge of the ROW or as close to centerline as possible will result in lower field levels at the edge of the ROW. Calculations are based on normal peak current flow and a minimum conductor height of twenty-nine feet at midspan. Below are calculations showing magnetic field reductions from raising conductor heights an additional five feet more than needed to meet clearance requirements:

**Table 1. Magnetic Field Reduction for Raising Conductor Height by Additional Five Feet.**

Segment	Base Case	Raise 5 Feet	Reduction
Geysers #12-Fulton Geysers #17-Fulton Fulton-Hopland	16.1 mG	13.0 mG	19%

The purpose of magnetic field modeling is to evaluate relative effectiveness of various magnetic field reduction measures, not to predict magnetic field levels.

**Table 2. Estimated Cost of Raising Conductor Height by Additional Five Feet at Certain Locations**

The following table identifies the no cost and low cost field mitigation measures for each line segment, including the reasoning for each, and the estimated cost to adopt the measure.

Project Segment	Location (Street, Area)	Adjacent Land Use	Reduction Measure Considered	Measure Adopted? (Yes/No)	Reason(s) if not adopted	Estimated Cost to Adopt
0/1 to 0/5	Fulton Sub	Commercial/Industrial	None			
25/117D to 25/117A	Fulton Sub	Commercial/Industrial	None			
25/116	Lavell Road	Residential	Raise conductor five feet	Yes		\$10,000
25/115 to 25/13	Mark West School	School	Raise conductor five feet	Yes		\$30,000
25/112 to 24/106	Deerwood Drive	Residential	Raise conductor five feet	Yes		\$70,000
25/107 to 24/105	San Miguel School	School	Raise conductor five feet	Yes		\$30,000
24/104 to 24/101	Faught Road	Residential	Raise conductor five feet	Yes		\$40,000
0/6 to 0/9	Faught Road	Residential	Raise conductor five feet			
2/0 to 2/1		Undeveloped/Ag	None			
2/2 to 2/3	Shilo Ridge Road	Residential	Raise conductor five feet	Yes		\$10,000
2/4 to 2/5		Undeveloped/Ag	None			
2/6 to 3/7	Pleasant Ave	Residential	Raise conductor five feet	Yes		\$45,000
3/8 to 3/10		Undeveloped/Ag	None			
4/0 to 4/1	Chalk Hill Road	Residential	Raise conductor five feet	Yes		\$10,000
4/2 to 4/5ABC		Undeveloped/Ag	None			
4/6 to 4/7	Vinecrest Road	Residential	Raise conductor five feet	Yes		\$10,000
5/0 to 6/0		Undeveloped/Ag	None			
6/1ABC to 6/2	Brooks Road	Residential	Raise conductor five feet	Yes		\$10,000
6/3 to 9/5A	Bailhache Road	Undeveloped/Ag	None			

This FMP proposes to raise the height of thirty-nine structures in the school and residential land use areas by five feet taller than required for meeting clearance requirements. The estimated cost of this mitigation is \$265,000.

## **V. CONCLUSION: FIELD REDUCTION MEASURES SELECTED**

The Fulton-Fitch Mountain Reconductoring Project field management plan proposes to apply the following no cost and low magnetic field mitigation:

Raise the height of thirty-nine structures in the school and residential land use areas by five feet taller than required for meeting clearance requirements. The estimated cost of this mitigation is \$265,000.

## **VI. References**

California Public Utilities Commission. 1993. Order instituting investigation on the Commission's own motion to develop policies and procedures for addressing the potential health effects of electric and magnetic fields of utility facilities. Decision 93-11-013 (November 2, 1993).

California Public Utilities Commission. 2006. Order Instituting Rulemaking to update the Commission's policies and procedures related to electromagnetic fields emanating from regulated utility facilities. Decision 06-01-042 (January 26, 2006).

Pacific Gas & Electric Company. 2006. EMF Design Guidelines for E